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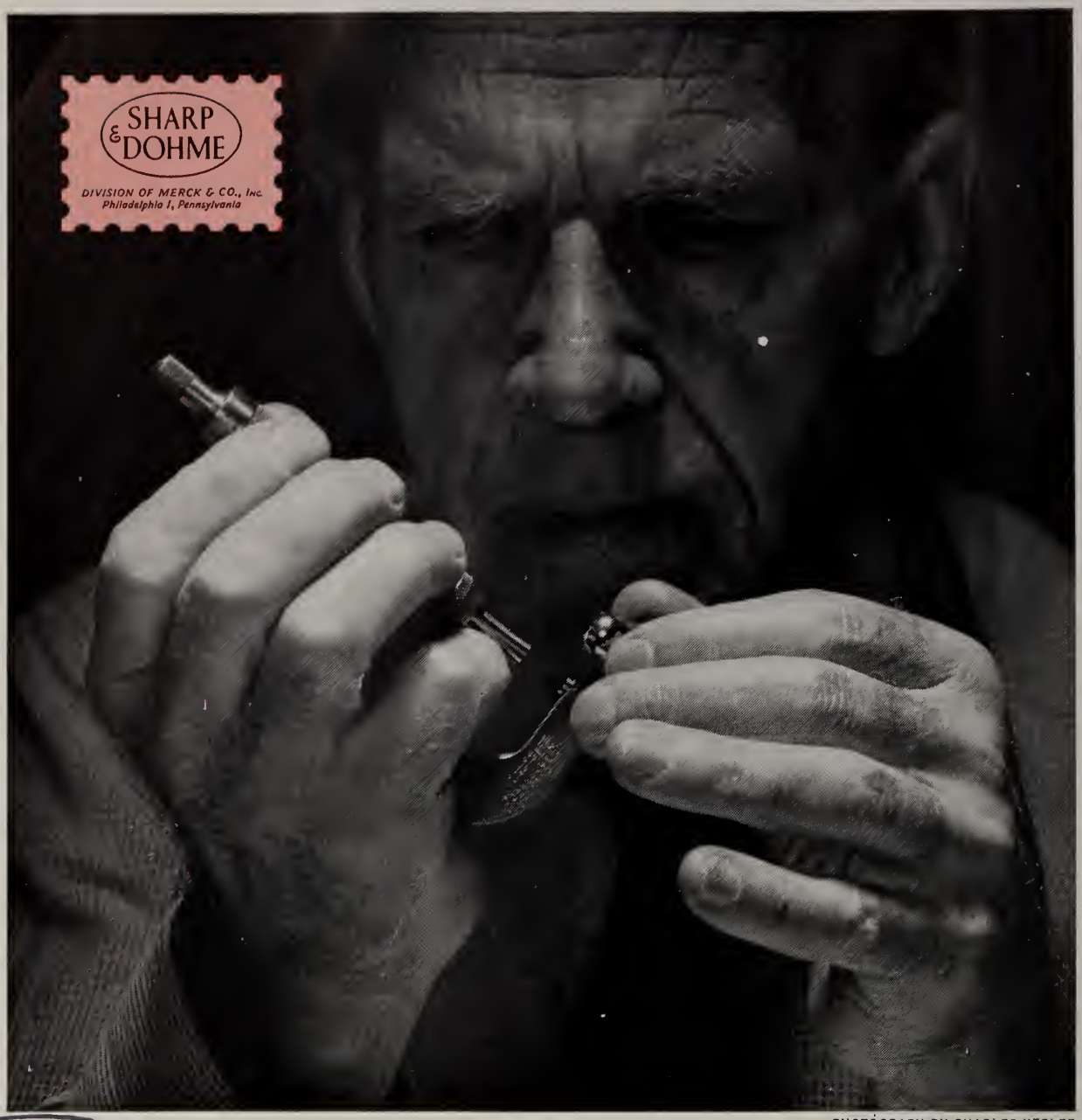

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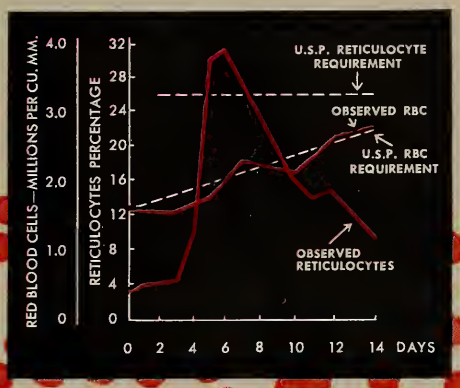

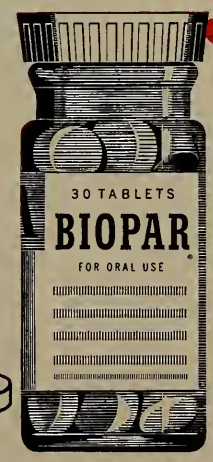

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New Breast Surgery Procedure Questioned

The safety and efficacy of a publicized surgical procedure for alleged correction of micromastia, as described in a recent issue of a national magazine, was questioned in a recent issue of the *Journal of the American Medical Association.*

The American Medical Association's Bureau of Investigation observes that Dr. Robert Alan Franklyn told a writer that he was able to correct such defects, which he said affect about 4,000,000 women, in "a relatively simple, 25-minute operation" called "Breastplasty."

"As can well be imagined, this glowing invitation to pectoral pulchritude has caught the fancy of a good many who feel they are among the four million," the bureau's report states. "A direct statement on this alleged number suffering from micromastia was made in the published article as though it were a well-established scientific fact, but nothing is offered to describe for the readers the identity of the poll-taker or the norms used in determining the extent of the alleged affliction."

Dr. Franklyn is quoted as criticizing recognized corrective surgical procedures and stating that his technique and the substances he used were superior to those presently employed. To this the bureau answered:

"The principal mystery seems to be the identity of the substance used. In the report it is described as a 'nylon-like resilient material impregnated with penicillin.' Inquiry to Dr. Franklyn discloses that 'the substances used by me are not on the market—having been ordered specifically from the supplier for test purposes.'

"It seems strange, indeed, that a material of such composition is offered to four million American women with the assurance that it is harmless, efficient and safe on a long-range basis."

The bureau's report also points to animal experiments wherein sponge inserts under the breasts became of gristle-like consistency.

The bureau's report concludes:

"It is strange indeed that a physician would permit publication of the details of a surgical procedure in a popular magazine when such procedure does not appear to have the benefit of exhaustive tests on animals to establish its safety and efficacy."

Dr. Edward J. McCormick, a Toledo surgeon and president of the American Medical Association, observes:

"The implantation of foreign matter into the breasts of women for purely cosmetic purposes is fraught with danger. Sufficient experience must be gained to prove that the irritation which may be caused by such material will not cause cancer."

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Three patients with intractable anogenital pruritus who were completely relieved by ACTH therapy have been reported in a recent article.† In other instances, HP*ACTHAR Gel provides needed relief until specific, time-consuming measures can exert control.

†Fromer, J. L., and Cormia, F. E.: J. Invest. Dermat. 18: 1, 1952.

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Safety in Art Classroom Provided by Good Supervision

Intelligent supervision of school children using art materials will eliminate the hazards of such materials, a medical consultant wrote in a recent issue of the *Journal of the American Medical Association.*

Although certain producers of art supplies for elementary school use seek to avoid materials that may injure health, safety in the art classroom is best provided through instructor supervision, the consultant stated, adding:

"Obviously school art crayons and paint should not contain lead, cadmium, benzol, methyl alcohol, carbon tetrachloride or kindred agents. To some extent, the natural coloring agents are less harmful than the synthetic, but there are exceptions. Wax crayons colored with aniline dyes somewhat frequently cause methemobloginemia, but this is chiefly due to chewing of the waxes rather than to proper school use.

"One difficulty springs from the fact that many art materials are sensitizers and on a somewhat unpredictable basis. Even the sizing materials and fixatives common to art work sometimes serve as sensitizing agents. The pigment in some colored pencils, such as the methyl violet in indelible pencils, may serve as a direct damaging agent to the eyes, that is, particles of methyl violet from indelible pencils entering the eye are peculiarly damaging to the cornea.

"Freedom from exposure in the art classroom is more a matter of supervision than of materials. Turpentine serves as a good example. Ordinary turpentine is a toxic agent, a skin irritant, a sensitizer and readily flammable. Intelligent supervision may eliminate all these threats."

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The investigators† stress the need for continued administration of Monichol because idiopathic or familial hypercholesteremia is most probably an *inborn error of metabolism.*

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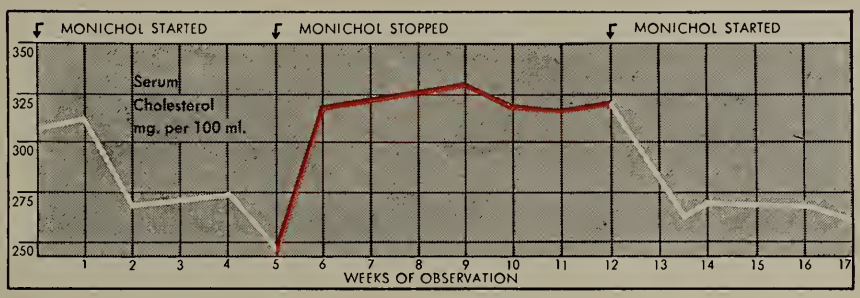

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Formula: Each teaspoonful (5 cc.) contains:

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†Sherber, D. A., and Levites, M. M.: Hypercholesteremio. Effect on Cholesterol Metabolism of a Polysorbate 80-Choline-Inositol Complex (MONICHOL) J.A.M.A. 152:682 (June 20) 1953. *Trademark

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WHO Committee Urges National Mental Health Units

The World Health Organization's Expert Committee on Mental Health strongly recommends that each member government set up a special division to deal with the organization of mental health services on the national level. "Without such central representation it will prove very difficult to stimulate the development of mental health work throughout the country," the group states. The committee also has agreed on the "essential characteristics" of the modern psychiatric hospital. Its suggestions now go to the 18-member executive board for decision on whether to publish the report as a WHO document.

The committee lists among the essentials: (1) the psychiatric hospital should be designed by a town planner on the model of a small village with 25 to 30-patient units split into groups of not more than 10; total capacity should range from 300 to 1,000 beds, (2) a hostess, endowed with intelligence and an attractive personality should receive the patient, (3) the personality of the patient should be respected, (4) the psychiatric nurse should be a specialist technician and should not be obliged to attend more than 3 to 6 patients, (5) patients should be encouraged to form themselves into clubs.

—A.M.A. Washington Letter

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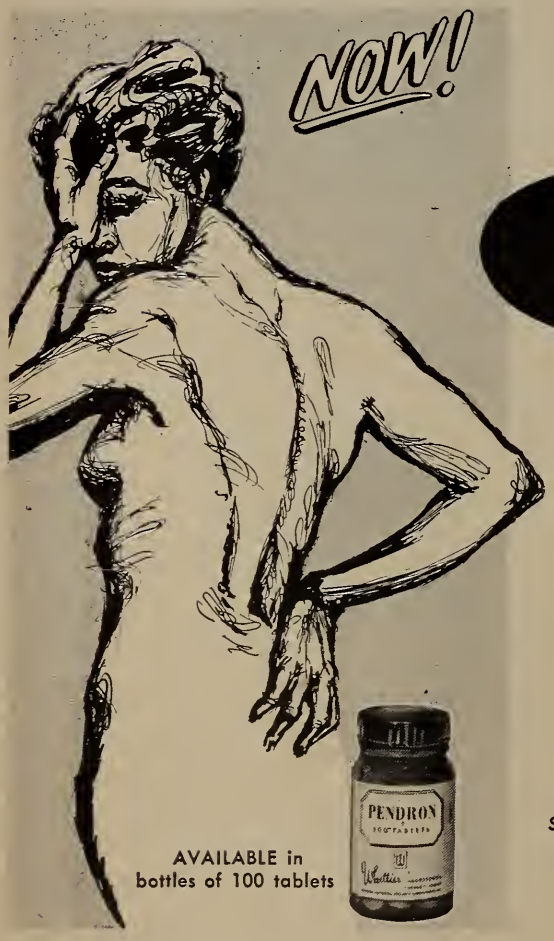

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"...because of its absence of after-effects."

Malone, H. J.; Klimkiewicz, G. R., and Gribetz, H. J.: A Study of the Hypnatic Effect af Dormisan in Children, J. Pediat. 41:153, 1952.

"...may be regarded as probably the hypnotic of choice."

May, P. R.A., and Ebaugh, F. G.: Use of Hypnotics in Aging and Senile Patients: A Clinical Study of Dormison, J.A.M.A. 152:801, 1953.

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Asks Agencies to Identify the White Coat

Some time ago the A.M.A. Public Relations Department embarked on a campaign to eliminate the "white coat commercials" on television programs, and so far its efforts are getting good results, judging from the following item which appeared in one of the popular broadcasting magazines:

"Advertising agencies received letters last week from Thomas B. McFadden, director, NBC Spot Sales, asking them to identify TV commercials delivered by persons wearing doctors', dentists' or nurses' garb as 'dramatizations.'

"The letter explained the request is in accord with instructions from the NARTB Television Code Review Board, stemming from a complaint made by the American Medical Association. Stations represented by NBC Spot Sales are participating members of NARTB, the letter noted.

"Specifically, Mr. McFadden asked 'that on those commercials handled by you on our facilities currently affected, you arrange for a live or video insert either immediately preceding or following the commercial to the effect that, "The following is a dramatization".'

"George Frey, vice-president and sales director, NBC Television Network, has sent a similar letter to agencies placing business on that network."

—The A.M.A. Secretary's Letter

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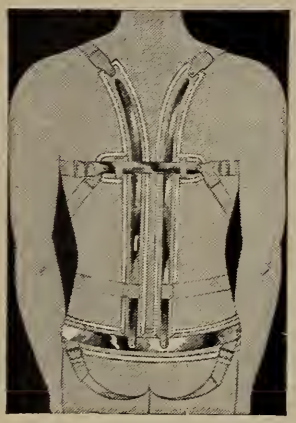

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Fractures and Traumatic Surgery, Two Weeks, starting March 1.
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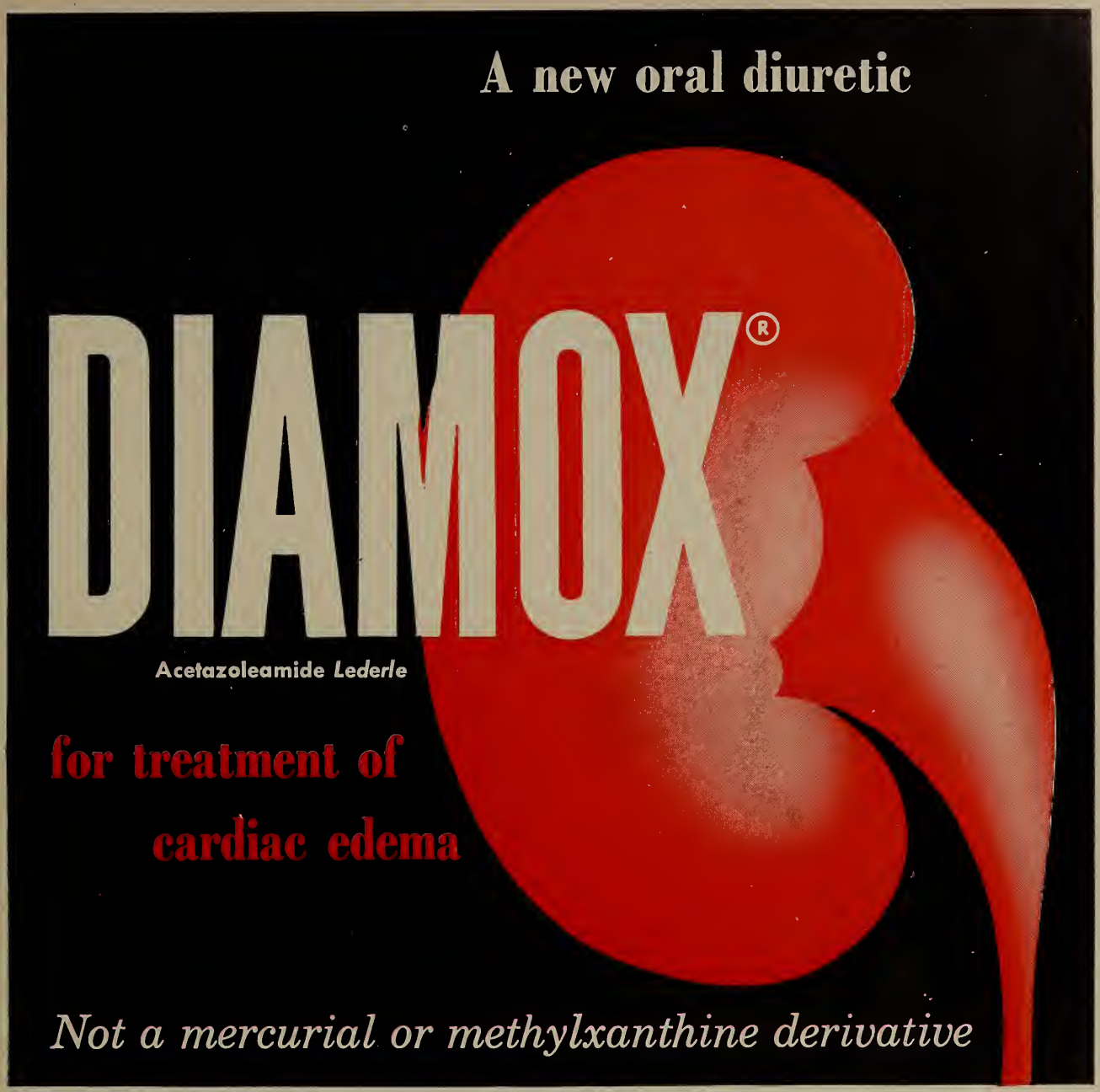

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Electric Shock Treatments Aid in Drug Addiction Withdrawal

Electric shock treatments eliminate unnecessary suffering and danger during withdrawal of drugs from addicts, in the opinion of Drs. F. B. Thigpen, C. H. Thigpen and H. M. Cleckley, Augusta, Ga.

Writing in a recent issue of *Archives of Neurology and Psychiatry*, published by the American Medical Association, the doctors reported on a study of 34 addicts treated by this method. Addiction existed from one month to 20 years, and electric shock treatments necessary to obtain successful results ranged from 3 to 40. Many of the patients had such physical complications prior to treatment as heart, kidney and liver diseases, migraine and hardening of the arteries. None of the complications was affected by therapy.

"Current reports indicate that approximately one person in each 3,000 of our population is seriously addicted to drugs of the alkaloid type," the doctors pointed out. "As a social, economic and medical problem, drug addiction demands the attention of physicians, challenges their best efforts."

Usually the treatment of choice is gradual withdrawal of the drug, the doctors said, a procedure which requires at least 135 days hospitalization. Many serious physical and emotional symptoms and problems are present during such withdrawal, they stated, adding:

"In 1948 we began using electric convulsive treatment to eliminate the adverse manifestations of withdrawal, in an effort to help patients progress through this period without severe emotional and physiologic disturbances. This measure was from the first so successful that we felt it should be brought to the attention of others.

"Since that time we have seldom given addicts under treatment any of the drugs after they enter the hospital. Instead, they are given electric shock treatments according to an elastic schedule. Treatments are administered as indicated, being determined chiefly by the patient's subjective complaints. No physiologic manifestation of withdrawal has appeared to serve as a supplementary indication for determining when a treatment should be given.

"Our patients are handled in the psychiatric section of a general hospital, and we have no legal means of holding them against their will. Before we adopted our present method, few addicts remained long enough to be freed from their drugs. Many lacked a full and strong intention of working all the way to abstinence. Apparently they began treatment with the limited goal of reduction, hoping to regain a lost physiologic responsiveness to their drugs so that smaller, and more readily available, doses would give the effects they desired, but, because of

(Continued on Page 32)

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antiarthritic action

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BUTAZOLIDIN relieves pain and improves function in the great majority of arthritic patients. Its broad therapeutic spectrum makes it valuable in virtually all the more serious forms of arthritis. *Like other powerful antiarthritic agents,* BUTAZOLIDIN *should be prescribed according to a controlled regimen, based on careful selection of cases, judicious manipulation of dosage, and regular observation of the patient.* To obtain optimal therapeutic results with minimal incidence of side reactions, physicians are urged to send for the brochure "Essential Clinical Data on Butazolidin."

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(1) Burns, J. J., and others: J. Pharmacol. & Exper. Therap. *106*:375, 1952. (2) Byron, C. S., and Orenstein, H. B.: New York State J. Med. *53*:676 (Mar. 15) 1953. (3) Currie, J. P.: Lancet *2*:15 (July 5) 1952. (4) Davies, H. R.; Barter, R. W.; Gee, A., and Hirson, C.: Brit. M. J. *2*:1392 (Dec. 27) 1952. (5) Delfel, N. E., and Griffin, A. C.: Stanford M. Bull. *2*:65, 1953. (6) Domenjoz, R.: Federation Proc. *11*:339, 1952. (7) Domenjoz, R.: Internat. Rec. Med. *165*:467, 1952. (8) Goldfain, E.: J. Oklahoma M. A. *46*:27, 1953. (9) Gutman, A. B., and Yü, T. F.: Am. J. Med. *13*:744, 1952. (10) Kuzell, W. C.: Annual Review of Medicine, Stanford, Annual Reviews, *2*:367, 1951. (11) Kuzell, W. C., and Schaffarzick, R. W.: Bull. on Rheumatic Diseases *3*:23, 1952. (12) Kuzell, W. C.; Schaffarzick, R. W.; Brown, B., and Mankle, E. A.: J.A.M.A. *149*:729 (June 21) 1952. (13) Kuzell, W. C., and Schaffarzick, R. W.: California Med. *77*:319, 1952. (14) Patterson, R. M.; Benson, J. E., and Schoenberg, P. L.: U. S. Armed Forces M. J. *4*:109, 1953. (15) Rowe, A., Jr.; Tufft, R. W.; Mechanick, P. G., and Rowe, A. H.: Am. Pract. & Digest Treat., in press. (16) Smith, C. H., and Kunz, H. G.: J. M. Soc. New Jersey *49*:306, 1952. (17) Steinbrocker, O., and others: J.A.M.A. *150*:1087 (Nov. 15) 1952. (18) Stephens, C. A. L., Jr., and others: J.A.M.A. *150*:1084 (Nov. 15) 1952. (19) Wilkinson, E. L., and Brown, H.: Am. J. M. Sc. *225*:153, 1953.

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Electric Shock Treatments Aid in Drug Addiction Withdrawal

(Continued from Page 26)

progressive habituation, could no longer obtain regularly.

"These, apparently, did not really seek rehabilitation but wished to regain a lost or diminished capacity to utilize opiates pathologically. With the regular application of electric convulsive therapy, we have, for several years now, been able to complete withdrawal in most cases and send our patients out of the hospital physiologically free of habituation.

"This, of course, does not constitute a full solution of their problem. Many return in time to the drugs. Some, we are pleased to report, prove themselves able to maintain their freedom and health. We do not say that electric convulsive therapy is a full solution to the basic problems of addiction, but we are confident in recommending it as a uniquely effective method of achieving what unquestionably must always remain for every addict the first step toward real recovery.

"Some patients, finding themselves really free from the vicious cycle, are able to work successfully toward rehabilitation. It has appeared to us that underlying conditions, particularly elements of real depression, are also favorably modified by electric convulsive treatment, and that such modifications may be of lasting value to the patient."

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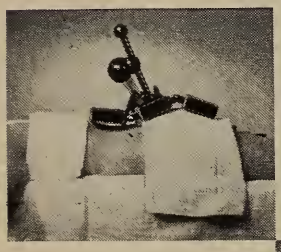

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Synthetic Opiate Proved Effective In Gastroscopy

Meperidine hydrochloride, a synthetically produced opiate, has proved effective in facilitating examination of the interior of the stomach by means of a gastroscope, it was reported in a recent issue of the *Journal of the American Medical Association.*

Sedation and analgesia produced by use of the drug are superior to results obtained by other drugs, and its use eliminates the necessity of topical anesthesia and its possible hazards, it was stated by Drs. Paul J. Cimoch and C. Wilmer Wirts, Philadelphia.

In a gastroscopic examination, an instrument is passed through the mouth of the patient into the stomach. This procedure requires complete relaxation and cooperation on the part of the patient. To obtain this and eliminate any pain attached to the procedure, many combinations of drugs have been used.

The doctors described the intravenous administration of meperidine hydrochloride one to three minutes prior to gastroscopic examination of 256 patients. Relaxation and cooperation were obtained in the majority of cases. Of the examinations that were unsuccessful, most were the result of physical obstructions, the doctors said, adding:

"From our experience thus far, the administration

(Continued on Page 42)

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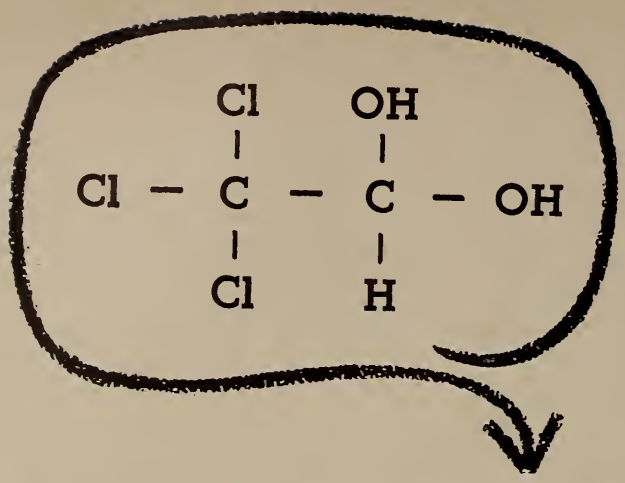

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DOSAGE: One to two 7½ gr., or two to four 3¾ gr. capsules at bedtime.

EXCRETION—Rapid and complete, therefore no depressant after-effects.[3-4]

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1. Hyman, H. T.: An Integrated Practice of Medicine (1950)
2. Rehfuss, M. R. et al: A Course in Practical Therapeutics (1948)
3. Goodman, L., and Gilman, A.: The Pharmacological Basis of Therapeutics (1941), 22nd printing, 1951.
4. Solimae, T.: A Manual of Pharmacology, 7th ed. (1948), and Useful Drugs, 14th ed. (1947)

The N.N.R. monograph on Furadantin states:

"**Nitrofurantoin.—Furadantin (Eaton).—**

Actions and Uses.—Nitrofurantoin, a nitrofuran derivative, exhibits a wide spectrum of antibacterial activity against both gram-positive and gram-negative micro-organisms. It is bacteriostatic and may be bactericidal to the majority of strains of Escherichia coli, Micrococcus (Staphylococcus) pyogenes albus and aureus, Streptococcus pyogenes, Aerobacter aerogenes, and Paracolobactrum species. The drug is less effective against Proteus vulgaris, Pseudomonas aeruginosa, Alcaligenes faecalis, and Corynebacterium species; many strains of these organisms may be resistant to it. However, bacterial resistance to other anti-infective agents is not usually accompanied by increase in resistance of the organisms to nitrofurantoin. The drug does not inhibit fungi or viruses.

Nitrofurantoin is useful by oral administration for the treatment of bacterial infections of the urinary tract and is indicated in pyelonephritis, pyelitis, and cystitis caused by bacteria sensitive to the drug. It is not intended to replace surgery when mechanical obstruction or stasis is present. Following oral administration, approximately 40% is excreted unchanged in the urine. The remainder is apparently catabolized by various body tissues into inactive, brownish compounds that may tint the urine. Only negligible amounts of the drug are recovered from the feces. Urinary excretion is sufficiently rapid to require administration of the drug at four to six hour intervals to maintain antibacterial concentration. The low oral dosage necessary to maintain an effective urinary concentration is not associated with detectable blood levels. The high solubility of nitrofurantoin, even in acid urine, and the low dosage required diminish the likelihood of crystalluria.

Nitrofurantoin has a low toxicity. With oral administration it occasionally produces nausea and emesis; however, these reactions may be obviated by slight reduction in dosage. An occasional case of sensitization has been noted, consisting of a diffuse erythematous maculopapular eruption of the skin. This has been readily controlled by discontinuing administration of the drug. Animal studies, using large doses administered over a prolonged period, have revealed a decrease in the maturation of spermatozoa, but this effect is reversible following discontinuance of the drug. Until more is known concerning its long-term effects, blood cell studies should be made during therapy. Frequent or prolonged treatment is not advised until the drug has received more widespread study. It is otherwise contraindicated in the presence of anuria, oliguria, or severe renal damage.

Dosage.—Nitrofurantoin is administered orally in an average total daily dosage of 5 to 8 mg. per kilogram (2.2 to 3.6 mg. per pound) of body weight. One-fourth of this amount is administered four times daily—with each meal and with food at bedtime to prevent or minimize nausea. For refractory infections such as Proteus and Pseudomonas species, total daily dosage may be increased to a maximum of 10 mg. per kilogram (4.5 mg. per pound) of body weight. If nausea is severe, the dosage may be reduced. Medication should be continued for at least three days after sterility of the urine is achieved."

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Sensitivity to Penicillin Counteracted By Antihistamines

Use of an antihistamine in conjunction with penicillin in a penicillin-sensitive patient may permit the patient to receive full benefit from the drug without danger of severe reactions, according to Dr. C. A. Beck, Chicago.

Writing in a recent issue of the *Journal of the American Medical Association,* Dr. Beck described the case of a 49-year-old woman who suffered from a bacterial infection in the lining of the heart. Because of her sensitivity to penicillin she was treated with numerous other antibiotics, all of which failed to alleviate the infection.

When the patient's condition became worse despite treatment, a penicillin-antihistamine regimen was instituted. No adverse reactions were noted and after several months of therapy she was discharged as cured, he added.

"This result is particularly significant because other antibiotics, to which the patient was not sensitive, failed to achieve the desired clinical response, and because of the severity of the previous penicillin reaction in the patient," it was pointed out by Dr. Beck, who is associated with the department of medicine at Michael Reese Hospital.

Bovine Brucellosis Vaccine Causes Infection in Humans

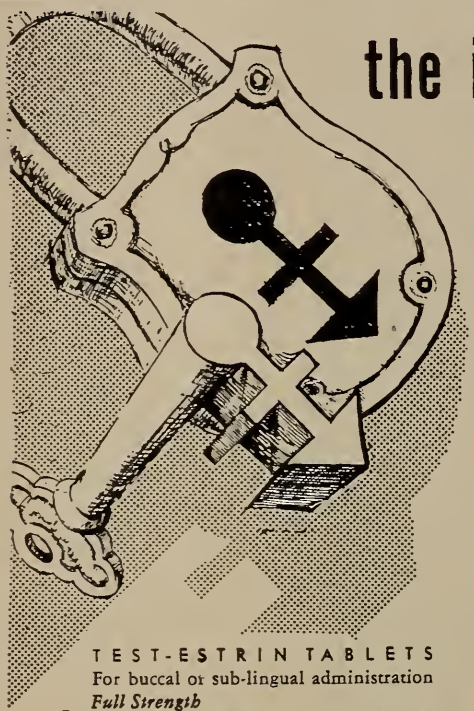
The first definite proof that direct contact with the vaccine used to immunize cattle against brucellosis can cause human brucellosis was reported in an article and an editorial in a recent issue of the *Journal of the American Medical Association.*

With this proof went the warning that the vaccine contains a viable pathogen, and that it should be handled only by qualified persons, preferably veterinarians, and then with the knowledge that accidental contact with it may result in active brucellosis.

The case reports of two 25-year-old veterinarians who became ill after accidental infection with the vaccine, produced from Brucella abortus, strain 19, while immunizing calves were described by Drs. Wesley W. Spink and Hugh Thompson, Minneapolis. The doctors are associated with the department of medicine and the student health service, University of Minnesota Hospitals and Medical Schools.

One veterinarian became infected when the needle of the syringe containing the vaccine accidentally entered the palm of his right hand. In the second victim, the vaccine accidentally splashed into both eyes. Both men became quite ill, but recovered following treatment.

(Continued on Page 46)



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Synthetic Opiate Proved Effective In Gastroscopy

(Continued from Page 33)

of meperidine hydrochloride for gastroscopy has been found simple, and the resulting sedation and analgesia have been superior to the results we formerly obtained with morphine and atropine. In many patients, the effect was so striking that they appeared to be in a deep sleep but remained cooperative and responded to instruction.

"Because it is given immediately prior to examination, the drug permits the type, amount and time of administration of premedication to be controlled by the examiner. Furthermore, since it can be used as the only premedication, it eliminates the risk of topical anesthesia."

Some patients suffered such side-effects as dizziness, nausea and light-headedness, but these reactions were "so minimal that they can be discounted," the doctors stated.

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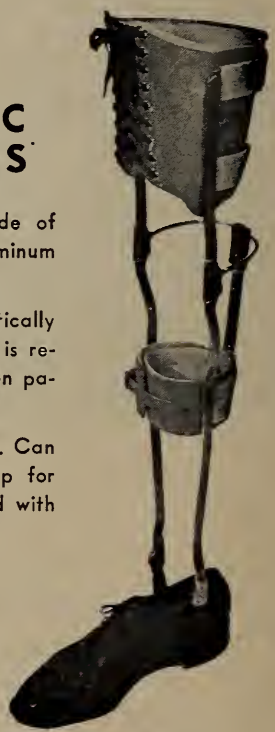

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Bovine Brucellosis Vaccine Causes Infection in Humans

(Continued from Page 38)

"An effective means for immunizing cattle against brucellosis involves the infection of viable organisms of Br. abortus, strain 19," the doctors stated. "In the campaign to eradicate bovine brucellosis, strain 19 is being used extensively in the United States and in other countries where Bang's disease is a problem.

"This report on human brucellosis caused by strain 19 does not imply in any way that the use of this vaccine should be curtailed. It does emphasize, however, that strain 19 is not innocuous and that it should be handled only by qualified persons, preferably veterinarians, and then with the knowledge that the accidental introduction of the organisms into the human subject may be followed by illness."

The doctors pointed out that no evidence has been presented to show that persons have contracted brucellosis from cattle vaccinated with this strain.

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Ambulance to or from Hospital	10.00	20.00	30.00	40.00
COSTS (Quarterly)				
Adult	2.50	5.00	7.50	10.00
Child to age 19	1.50	3.00	4.50	6.00
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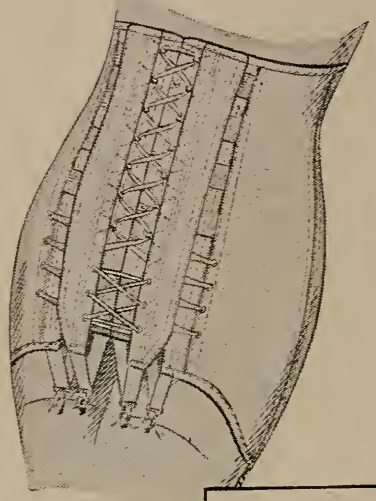

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"Mankind is troubled by disorder within and dissension without," according to Dr. Joseph L. Fetterman, Cleveland. "Inner frailties and external exposures. human and natural, and the fears that accompany them, lead to all manner of tensions. They affect not merely thinking, but all emotional and bodily processes as well.

"Thoughts revolve in a whirlpool of worry. Physical symptoms become manifest; the heart may beat faster and faster, the muscles become tense and tremulous. Once initiated, such tension may grow from its own momentum. Indigestion, irritability, weakness, pains, tightness may be felt."

Yet it is usually possible to prevent tension or to immunize oneself so as to cope with troubles with minimum discomfort, Dr. Fetterman wrote in a recent issue of *Today's Health* magazine, published by the American Medical Association, adding:

"To begin with, the person who follows a health routine of work, exercise, rest and nutritious food is more apt to remain composed in times of stress. Secondly, one must learn to avoid situations which are charged with fear. Everyone is allergic to specific situations, and should try to avoid them."

Because prevention of tension is not always feasible and there are situations one cannot escape, a person is compelled to find means of relaxation. The roads to relaxation are many and each person should select those which are suitable to his makeup, physique, interest and opportunity, according to Dr. Fetterman. Ways to relax include:

1. Muscular ease. The physical comfort of muscular ease can initiate a temporary feeling of well-being. Complete physical and mental rest is the first road to relaxation.

2. Water treatment. Mankind loves the water and can find relaxation, rest and refreshment from it.

3. Exercise. Physical activity, whether work or play and sometimes of a strenuous degree, may alone provide escape from tension.

4. Hobbies. As it is not always possible for a person to participate actively in exercise or hard physical work, hobbies offer a wide variety of ways to relax.

5. Entertainment. When conditions of health and climate preclude active participation, entertainment such as that provided by movies, television, concerts or the theater relieve tension.

6. A change of scenery. It is often advisable to get physically away from the annoyances of everyday living, the routine and the harshness that surround one, the demands of the family, the jangling

(Continued on Page 58)

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You Can't Escape Tension, But You Can Minimize It

(Continued from Page 50)

of the telephone, and the ever-recurring problems.

7. Reading and music. For most people, reading and music are inviting pathways to relaxation and are relatively inexpensive of time and energy.

8. Fraternization. The tenseness one feels when alone may vanish when he or she participates in a group.

9. Chemical aids. When efforts of relaxation fail, a physician may prescribe a sedative to be taken at the necessary time.

10. Psychologic aids. In certain instances relaxation cannot be achieved by physical measures alone and will require psychological techniques.

11. Professional assistance. When the degree of tension and its persistence are beyond self-help, it becomes necessary to rely on the assistance of those professionally trained and experienced.

12. Psychiatric help. When the tension arises from causes not easily relieved by the family physician, specialized psychiatric care is in order.

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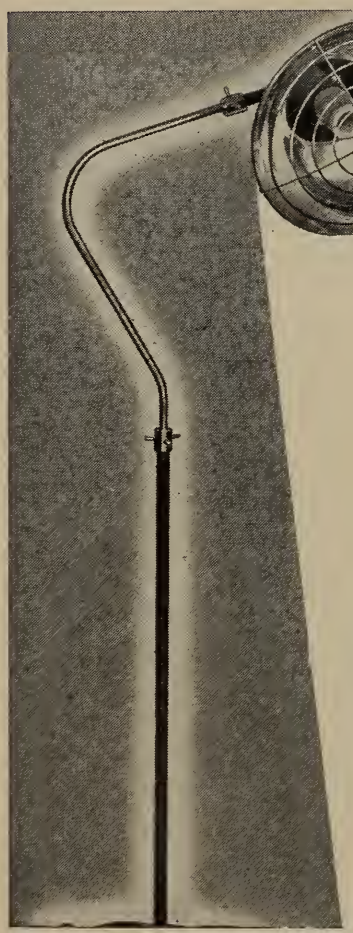

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Present Status of Serological Tests for Cancer

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In 1900 the average life expectancy for persons in the United States was 49 years; today it is approximately 69 years. In 1900 cancer was eighth among the principal causes of death in this country, with 64 deaths per 100,000 population. In 1946 it was the second most common cause of death and the crude mortality rate was 130 per 100,000 population.

More than 90 per cent of cancer cases occur in persons over 30 years of age and the continued increase in the longevity of the population accounts for the major portion of the increase in cancer mortality. Of 211,090 persons who died of cancer and other malignant tumors in 1950, 106,015 or more than half were under 65 years of age, 23.647 or about 11 per cent were under 45 years and 5,466 or about 2.5 per cent were under 25 years of age.[16] Improved diagnostic methods have also helped to list the correct cause of death which in the past may have been improperly diagnosed. Also, autopsy is done more often nowadays. For example, many deaths attributed to pneumonia were probably caused by pulmonary cancer and deaths ascribed to gastric ulcers may have been caused by cancer of the stomach.

From studies reported by Dorn[4,5,6] in 1944 of the number of cancer cases in ten cities during 1937-39, it was estimated that 475,000 to 500,000 persons were being treated for cancer in the United States. It was also estimated that 300,000 new cases were diag-

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• The cancer problem is increasing as life expectancy increases and greater portions of the populace live to the age at which cancer is more likely.

Early diagnosis still is difficult. Even with modern methods and with considerable public education with regard to cancer, the disease is often not diagnosed until it is beyond the stage at which cure might be effected.

The need for a serodiagnostic test for general screening purposes for cancer detection is tremendous.

The major objective of cancer serodiagnostic test methods is to discover a general test that will detect cancer in a high percentage of cases while it is in an early stage; that will give few "false positive" results; that can be done in any laboratory; and that is simple and inexpensive.

Many serodiagnostic tests for cancer have been published but none has proven worthy of being a good general test to detect cancer. Yet unless some serodiagnostic test which will be suitable for general screening purposes is developed, it is difficult to see how there can be much improvement in the early diagnosis of cancer, particularly internal cancer.

It is hoped that an open-minded attitude will be maintained by physicians on this subject. Recent reports of such a test being developed are encouraging and it is hoped that continued investigations will be confirmatory.

nosed each year. In 1951 it was estimated that at least 700,000 persons were currently under treatment for cancer and that about 525,000 new cases of cancer were diagnosed each year. Approximately one out of every five persons now alive in the United States will have cancer at some time in his life unless new preventive measures are found.[3] With the continued aging of the population more and more cancer cases can be expected and the problem of early diagnosis and appropriate treatment will be materially increased. It is expected that in the year 2000, only 46 years from now, 42.6 per cent of the population will be over 40 years of age as contrasted with 23.4 per cent in 1900, and that the annual number of deaths from cancer will be 415,000.

Today, even with modern methods of diagnosis and considerable cancer education, cancer when first detected (with the exception of skin cancer) is completely localized or in the early stage in less than 30 per cent of cases and only about 50 per cent are considered to be at a stage at which cure may be possible. Approximately 25 per cent of men over age 50 have cancer of the prostate. This fact has been noted in careful histological examinations of the prostate of patients who have died of other causes. The cancer may be latent or inactive, having not yet produced clinical symptoms. The failure to diagnose early breast cancer in women is attributed to the fact that in over 70 per cent of the cases there is no associated pain with the lump in the breast. It is hoped that education and self-examination of the breast will help and will cause women to seek medical advice earlier. The actual number of cases of sub-clinical cancer of the cervix of the uterus is difficult to estimate, but it is probably much higher than is generally thought.

From the foregoing the enormity of the cancer problem, particularly for the future, can be appreciated.

CYTOLOGIC DIAGNOSIS

Cytologic diagnosis attempts to fill in the gap between a general cancer test and biopsy examination. Cytology in cancer detection has been developed by Papanicolaou to help diagnose early cases which might otherwise be missed by the usual diagnostic methods. For many years there has been a reluctance on the part of many physicians to fully value the possibilities of exfoliative cytology. Its widespread use is evidence of its general acceptance as a good diagnostic procedure. This method of examination facilitates the diagnosis of cancer in its earliest stages, before the occurrence of any clinical manifestations of the disease. For this reason it can be used as a method of screening in cancer clinics and it also helps to make each physician's office a diagnostic center for cancer.

When Papanicolaou first suggested the cytologic test it was limited to the female genital tract. At present, secretions from the breast, prostate, bronchi, stomach, esophagus, genito-urinary tract, and exudates from the pleura, peritoneum and pericardium are being studied.

It must be emphasized that a "positive" report on cytologic examination is not a final diagnosis and that biopsy examination must confirm the smear report before definitive therapy is carried out. In cases of suspected lesions in areas of the body not accessible to biopsy, great care must be taken to establish the diagnosis by repeated smear tests and clinical data. One of the major limiting factors in the cytologic test is the small number of persons capable of interpreting the smears. This number is constantly increasing, however.

THE SERODIAGNOSTIC TEST

The serodiagnostic test has been plagued by many problems. There have been many overly enthusiastic persons reporting results before adequate clinical trials, too high a percentage of "false negatives" and "false positives," poor public relations in handling the publicity, exploitation of tests by certain laboratories and physicians, and many other problems. The interest in cancer serodiagnostic methods is keen and it varies from strong enthusiasm to diehard skepticism.

The major objective of the cancer serodiagnostic test methods is to discover a general test that will detect cancer in a high percentage of cases while it is in an early stage, that will give few "false positive" results, that can be done in any laboratory and that is simple and cheap. Like those of the cytologic test, the results of such a serodiagnostic test would be indicative only and final diagnosis would have to be established by the usual clinical, radiological and histological methods.

Dunn and Greenhouse[7] have suggested criteria for a general cancer test as follows: "It must give positive results in at least 90 per cent of the cases with early localized cancer encountered in the general population; and it must give no more than 5 per cent false positive tests in non-cancerous individuals in the general population. On these premises the evaluation procedure involves the following and in this order: (1) determining test results in a group of individuals having cancer, (2) determining test results in a comparable group of normal individuals, (3) determining statistical values for reproducibility of test results for the same technician, between technicians, and for the same test subject over a period of time, (4) determining the effect of other diseases and conditions on test results, (5) investigating other factors possibly affecting test

results, e.g., fasting versus postprandial specimens, fresh versus retained specimens, etc., and (6) investigating suitability of test for mass screening by field trial."

If such a program is carried out according to these specifications much of the confusion now existing regarding non-cytological cancer tests will be dispelled.

The fact that a serologic test reaction "positive" for cancer is sometimes caused by the presence of conditions other than cancer, such as active tuberculosis, cirrhosis of the liver, massive infections, trauma, pregnancy and active rheumatic fever, should not discourage the use of an otherwise reliable general cancer test for screening purposes. In such cases the error usually can be detected readily enough by physical examination and the history.

If periodic tests are made on a large group of persons over a long period, and especially a group in the older age brackets, then real progress can be made. For thus it would be possible to determine the changes that take place in the results of tests before the development of cancer, during illness, and after treatment. Moreover, the changes that occurred during the normal process of aging in individual persons, and the effects of many other diseases, could be observed.

One of the ways to learn more about the effect of the life history of the various kinds of cancer is by means of serodiagnostic methods. Knowledge of what happens from the inactive, subclinical stage to the active clinical stage could be increased; and data could be obtained on cancers that produce death in a few months and others only after many years. Too often cancer is considered as a single disease when in fact it is made up of a variety of diseases each with its own life history and peculiarities.

STUDIES OF VARIOUS PROPOSED TESTS

The cancer tests that have been advocated can be listed under various headings, such as qualitative and quantitative changes in serum protein, immunologic tests, enzyme determinations, etc.

It has been found that the content of proteins in the plasma tends to decrease as a cancer grows. The changes that occur in the plasma proteins when cancer is present are non-specific. There is a general decrease in plasma albumin, as determined by both salt fractionation and electrophoretic methods in persons with cancer. While the changes occurring in the plasma are not characteristic of cancer, the frequency of the occurrence of these changes in association with neoplasm is significant. It has been pointed out by Winzler[21] and others that the nature of the changes in the plasma proteins is still not completely answerable. Other changes that may be present in the plasma proteins in persons with cancer are: (1) increased alpha-1 and alpha-2 globulin content, (2) increased fibrinogen content, (3) decreased amount of iodoacetate required to prevent thermal coagulation, (4) decreased tendency toward thermal coagulation, (5) decreased amounts of polarographically determinable SS or SH groups, (6) decreased "reducing powers" when heated with methylene blue, (7) increased tendency of plasma to become turbid on being heated, and many other changes.

TESTS THAT ARE NOW AVAILABLE

In 1948 Black, Kleiner and Bolker[1] reported they observed that plasma from cancer patients tended to undergo heat "coagulation" more readily than plasma from normal persons. Ericksen, Ellenbrook, Meek and Lippincott,[10] in studying this test, found that the plasma-coagulation technique is not a specific diagnostic test for malignant disease and that it is not suitable for screening purposes.

Hoff and Schwartz[14] reported that the intracutaneous injection of serum obtained from cancer patients who have received radiation therapy produces a diagnostic reaction in patients with cancer. Wiegenstein and Hain[20] repeated this test on a series of 60 patients with definitely proven carcinoma and when only one had the reaction described they concluded that the test has no practical diagnostic value.

Ellenbrook, Meek and Lippincott,[8] after studying the tests for the least coagulable serum protein and iodoacetate index, expressed the opinion that "the results obtained in this study are in agreement with Huggins' statement that these tests are not specific diagnostic tests for cancer. Neither are they specific tests for any type of cancer or of other disease. Because of their lack of specificity and sensitivity they are considered to be unsuitable for use in a cancer screening program, either alone or together." Ericksen, Ellenbrook and Lippincott[9] studied the plasma methylene-blue reduction technique and concluded that it is not a specific diagnostic test for malignant diseases since only approximately 50 per cent of the specimens obtained from patients with cancer gave abnormal results.

Immunologic aspects of cancer. Since immunological reactions have helped in the formulation of useful diagnostic and therapeutic aids in dealing with various other diseases, this feature as related to cancer has been thoroughly studied. The universal serologic reaction is a precipitation reaction manifested in both health and disease. This reaction is constant in the same individual. The presence of antigens and antibodies specific for cancer has not as yet been definitely determined. Greater flocculation reactions of serum with various lipid "antigens" have been observed in patients with cancer.

Penn,[18] Hall, Dowdy and Bellamy[13] described a seroflocculation reaction for cancer that is based on the hypothetical formation of an endogenous carcinogen as a result of disturbed metabolism. In this test, when the "antigen" is mixed with normal serum a fine persistent turbidity occurs, but when it is mixed with serum from a person with cancer there is rapid flocculation of the lipid and clearing of the mixture. Future reports concerning this test may reveal encouraging results.

Enzymes and cancer. Serum acid phosphatase is normally present in low amounts but increases considerably in the presence of metastatic prostatic cancer. Increased serum alkaline phosphatase is found with bone tumors and increased serum lipase with pancreatic tumors.

Winzler[21] expressed belief that it is likely that enzymes known as plasmin, fibrinolysin, serum protease and serum tryptase are identical. Bodansky[2] said that practically all biochemical reactions in the body are catalyzed by enzymes and he listed the following among enzyme activities which have been demonstrated in human serum: adenosinetriphosphatase, aldolase, acid phosphatase, alkaline phosphatase, amylase, beta-glucuronidase, cholinesterase, dehydropeptidase, desoxyribonuclease, esterase, peptidase, plasmin, and ribonuclease.

Present in the plasma are factors that inhibit the action of certain enzymes. West and Hilliard[19] observed that the activity of the chymotrypsin inhibitor increases in cancer and in certain other conditions. They also noted that serum contains an inhibitor of renin activity. These two inhibitors change in amounts during clinical improvement of disease or with its recurrence. West did not advocate the use of a test based on these changes as a diagnostic test for cancer. He recommended that the test be used to determine the growth activity of neoplasms and more specifically to measure the response of the neoplasm to treatment by operation, radiation and administration of certain drugs. Peacock and Sheehy[17] studied the serum inhibitors of chymotrypsin and trypsin and have found that lack of specificity precludes their use as a general cancer test.

Greenstein[12] noted that reduction of the liver catalase level was present only in animals that had rapidly growing tumors and that with slowly growing tumors the liver catalase activity was apparently normal. Catalase is a hematoporphyrin enzyme which acts on hydrogen peroxide to decompose it to water and molecular oxygen. Greenstein expressed belief that the value of this catalase enzyme is only theoretical.

Nakahara and Fukuoka[11, 15] reported the isolation from cancer in humans of a protease-like material that brings about pronounced diminution in the liver catalase of mice when injected intraperitoneally. In 1951 it was reported that the name toxohormone had been given to this tumor fraction and that it could be neutralized by the injection of iron salts. Further investigation of the enzymes of the blood may reveal other instances of a biochemical alteration in a specific organ or tissue caused by the presence of a cancer.

DISCUSSION

In the opinion of the author the secret of the etiology of cancer will be found within the malignant cell itself. The more differentiated malignant cells can closely simulate normal functions, and various degrees of differentiation and de-differentiation may be found in the same tumor at any one time. The changes in the serum proteins are quantitative and it is difficult to see how a very small superficial cancer —for example, a basal cell carcinoma—can be detected in blood studies because only minute amounts of material from the cancer will be mixed in the serum. However, Penn, Dowdy and Hall have obtained positive tests for basal cell carcinomas, carcinoma *in situ* in the cervix, etc. The reaction with their serodiagnostic test is non-specific in that it gives reactions in conditions other than cancer.

Unless some serodiagnostic test which will be suitable for general screening purposes is developed, it is difficult to see how there can can be much improvement in the early diagnosis of cancer, particularly internal cancer. By present diagnostic means it is difficult to diagnose cancer in its earliest, localized, and particularly the subclinical stage before any symptoms are present. There is no known chemical property which is characteristic for cancer alone. There is much to learn about the blood proteins, and methods will have to be found to further fractionate these proteins. Negative results are just as important as positive results in many instances, and it may be that specific tests will be found which will be applicable for special types of cancer and not necessarily for all cancers.

It is hoped that the present program of the National Cancer Institute to aid in the support of serodiagnostic tests will be continued and that the tests will be subjected to the rigid evaluation and control criteria outlined by Dunn and others.

At present there is no serodiagnostic test that is completely specific for cancer, but an open-minded, conservative attitude must be maintained by physicians on this subject, for there is prospect that much useful, practical information will come from present studies and that with added knowledge a general screening test for cancer can be developed.

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New Film Added to A.M.A. Motion Picture Library

"School Health in Action," a sound-and-color film produced for the Oklahoma State Department of Health with the cooperation of the Oklahoma State Medical Association, has been added to the A.M.A. motion picture library. This film is the story of Waytoka, a typical city in Oklahoma—how it recognized its school health problems, and through community effort launched a movement for solving these problems.

—The A.M.A. Secretary's Letter

Cerebral Palsy

An Approach to the Problem

PETER COHEN, M.D., San Francisco

• *A program for the cerebral palsied child has been developed in California which has been made possible through the cooperation of the state and local departments of education, the state and local departments of health, the Children's Hospital and Orthopedic Hospital at Los Angeles and the University of California School of Medicine in San Francisco. An attempt is being made to deal with not only the medical and educational needs of the cerebral palsied but also the social and emotional aspects.*

THE YEAR 1945 is a milestone in the history of cerebral palsy, for it was then that the California State Legislature appropriated almost a million dollars to provide increased services for the children with cerebral palsy, including:

1. Establishment of specialized diagnostic centers.
2. Development of two residence schools.
3. Development of special education and training facilities in public schools.
4. Provision of medical and surgical care.

The State Department of Education has administrative responsibility for the residence schools and diagnostic centers. In Southern California, the Department of Education has a contract with the Children's Hospital and the Orthopedic Hospital, both in Los Angeles, to provide the diagnostic clinic services. In the San Francisco Bay Area the responsibility for the diagnostic center and residence school is shared with the University of California School of Medicine. The State Department of Education also has the responsibility of developing special classes in connection with the local school districts.

Through Crippled Children's Services, the State Department of Public Health and local health departments have responsibility for case finding, for preliminary diagnostic examination and the provision of hospitalization for specific medical and surgical care, as well as aid in providing braces. The public health departments also cooperate in providing physical and occupational therapy in the local schools, as well as medical and orthopedic supervision. The services of public health nurses and medical social workers are made available through the public health departments to the children in the local schools.

The following remarks will be principally concerned with the cerebral palsy diagnostic center and the residence school in Northern California. The center is operated as part of the Outpatient Department of the University of California Hospital, to which any child up to the age of 21 years, with a diagnosis or suspected diagnosis of cerebral palsy is eligible, if referred by a physician or health officer. In the latter case, it is presumed that the diagnosis, or suspected diagnosis of cerebral palsy has been made by a physician. Following this initial referral, an application form is sent to the family in which pertinent information regarding the social and medical history of the child and family is requested. With these data and any additional information sent by the referring physician or health officer, special examinations may be anticipated.

Since the children must be examined on an outpatient department basis, an attempt is made to schedule appointments as efficiently as possible. In any case, every child is examined by one or more physicians, depending on the nature of the involvement. A psychological evaluation is made and the family is interviewed by a medical social worker. Usually, an x-ray film of the skull and an electroencephalogram are also obtained. An orthopedist, a pediatrician, and a neuropsychiatrist are available during the visit to the clinic in the event their services are required. Also available are a speech therapist, a physical therapist and an occupational therapist. If it becomes apparent that other special examinations are necessary—such as an ophthalmological or otological examination—the child is referred to the appropriate clinic. With this information obtained, an attempt is then made to determine the cause of the child's difficulties, the nature and the degree of involvement. Recommendations are made and interpreted to the family, and these, together

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Presented before the Section on Public Health at the 82nd Annual Session of the California Medical Association, Los Angeles, May 24-28, 1953.

with a summary of the findings, are sent to the referring physician and/or local health officer.

Interviews by the medical social worker often bring out serious social and emotional problems faced by the parents. Such a professional person is skilled in getting parents to talk about their problems, often bringing out facts which the physician may not ascertain and which are important to know in evaluating the total picture and in making recommendations for further care.

Where there is some question or where the staff has a special interest in a particular type of problem, the patient is asked to return for further evaluation. If the child lives in a community where no follow-up and no facilities are available for the special care he needs, the child will be followed in the diagnostic center or referred to the residence school for a stated period.

ADMITTANCE TO RESIDENCE SCHOOL

Children are admitted to the residence school upon recommendation from the diagnostic center. The selection of children for admittance is based on many factors, among which the following points are given principal attention:

1. Intensive therapy is required and local facilities are not available.

2. Study and evaluation of severely affected children when evaluation cannot be adequately done on an outpatient basis.

3. Owing to a social or emotional problem, the child is not making expected progress either physically or educationally, although local facilities are adequate.

4. Special learning problems, even though the child may be receiving adequate supervision locally for his physical problems.

While in the residence school, the child receives the kind of therapy he needs, plus an educational program designed for his particular needs. The treatment by the therapists is designed to make the child more independent, to walk, if only with the aid of crutches and braces, to improve his self-help skills, to learn activities which may lead to future vocation or hobbies, and to communicate with others. The stress is on functional activity. His treatment is supervised by a pediatrician in consultation with specialists such as an orthopedist, physiatrist, neuropsychiatrist, ophthalmologist and otolaryngologist. Each child receives dental examination and necessary treatment.

While in the school, the child is made as self-sufficient as possible, with the treatment and training program carried over into the schoolroom, dormitory, dining room and recreation areas. The teachers and attendants are kept informed of the self-help skills and abilities so that each child may continue to practice the skills he learns in the therapies. This is done by means of cards which are posted in the appropriate areas for reference by those caring for the children.

On visiting days the families are informed of the child's progress. Periodically they are invited to visit during the week, in order to observe the child receiving therapy at school and to learn how to carry on with the child after he leaves the school. They are given an opportunity to visit just before the child leaves the school and are indoctrinated by the therapists with the techniques necessary for treatment.

In conjunction with the school, a Parent-Teachers' Association has been organized. It meets at stated intervals to discuss matters relating to problems of cerebral palsy. This has been most successful as an educational program and as a form of group therapy for the parents. Some of the meetings are addressed by members of the staff of the residence school. At other meetings, the parents bring up questions which *they* discuss, with a member of the staff acting as moderator. As a result of these discussions, some very practical advice is given to the group by other parents who have had experience in meeting the problems which are brought up.

Staff conferences are held at various times while the child is at the school, in order to assess individual progress and to plan further treatment. Both the educational and the medical staff participate in these conferences. At the final staff conference, when the entire problem is reviewed and the progress of the individual child is indicated, representatives from the child's own community (both from the school department and the health department) are invited to hear the recommendations to be made, since they are the persons who will be working with the child. An educational report and medical report are sent to the local school and health department.

RESEARCH AND TRAINING

The program also offers an opportunity to train individuals for work with cerebral palsied children. Students from Stanford University, University of California and Mills College are given the opportunity for doing field work in physical therapy, occupational therapy and speech therapy at the residence school. In addition, a six-week course for teachers interested in handicapped children is held every summer at the residence school under the auspices of San Francisco State College. Medical students and nursing students from the University of California have an opportunity to observe the program and to obtain information regarding the problems encountered in cerebral palsy.

The clinic and school offer an extensive opportunity for research activities into the nature and treatment of cerebral palsy. Some of the studies that have been carried out include: a review of encephalographic records in cerebral palsy patients,[1] the relationship of mental deficiency to cerebral palsy,[2] and the effect of the cerebral palsied child on the family. Other studies which are under way include the relationship of learning disturbance in the child with kernicterus, the integration of the social worker and physician, special evaluations of bracing techniques and special equipment for the cerebral palsied child, the pathogenesis of cerebral palsy, the etiological factors in cerebral palsy, and the value of surgical procedures. A study of children who have been discharged from the residence school is under way. Moving picture records of some of the children are often made for study and comparison during treatment. A motion picture, "A Place in the Sun," that was made with the assistance of the Junior League of San Francisco, depicts the program of the cerebral palsy diagnostic center and residence school. This picture has had wide distribution throughout this country and abroad.

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State Medical Journal Conference

EDITORS AND BUSINESS MANAGERS of the various state medical journals came to A.M.A. headquarters on November 9 and 10 for the 1953 State Medical Journal Conference. With a total registration of 131, representing publications from Maine to Hawaii, the two-day seminar offered a wide coverage of subjects. Of particular interest to the editors and their assistants were talks by Paul de Kruif, Dr. Julian P. Price, Fred C. Sands of the Schering Corporation, and Prof. Paul D. Bagwell, head of the department of communications skills, Michigan State College.

The business representatives gave careful consideration to the ideas presented by Dr. Austin Smith; R. Blayne McCurry of Abbott Laboratories; William T. Coulter of Bruce Publishing Company; Alfred J. Jackson, who made a general report on the State Journal Advertising Bureau; Kenneth B. Butler of the Butler Typo-Design Research Center, and Gilbert S. Cooper of the A.M.A. specialty journals, who suggested new techniques which will doubtless be reflected in several of the journals.

—The A.M.A. Secretary's Letter

The Solitary Pulmonary Lesion

IVAN A. MAY, M.D., KASH ROSE, M.D., and DAVID J. DUGAN, M.D., Oakland

• *Pulmonary cancer when localized to the lung, is curable by operation. Tumors found by routine x-ray examination before they cause symptoms are much more often confined to the lung and as such are curable. Unlike other internal growths which are more hidden, lung tumors can often be seen early on x-ray films of the chest.*

X-ray films of the chest were made routinely on all patients entering a hospital, regardless of the nature of their illness. In all, some 40,000 films were made. Sixty patients were found to have unsuspected solitary lesions in the lung. Twenty-four of the lesions were diagnosed and treated by operation and removal. Twelve were diagnosed by other methods. Of the 36, eight were cancer of the lung, an incidence of 22 per cent. There were also 14 localized tuberculous nodules which are best treated by removal.

Since early cancer is surgically curable, it is felt that everyone over the age of 40 should have a routine x-ray examination of the chest every six months. Solitary lesions of the lung found should be excised for diagnosis.

THE INCREASE IN NUMBER of routine roentgenograms of the chest being taken nowadays, due to "surveys" of the populace and to the more frequent use of x-ray films by physicians in thorough examination of patients, is disclosing unsuspected abnormalities in many cases. Survey films disclose thoracic abnormalities in about 3 per cent of the persons examined — tuberculosis for the most part. Other pathologic conditions, including carcinoma, are noted in a significant number.[3, 4, 19] In patients who are under the care of a physician the incidence of lesions is considerably higher than that: Unsuspected lesions in the chest were noted in 10 to 12 per cent of patients who were subjected to a roentgen survey in a general hospital.[18] Pulmonary tumors were detected, by roentgenogram, in 91 (0.6 per cent) of 15,000 patients in the University of Chicago Clinic outpatient department.[6]

Among the abnormalities that may be detected by roentgen study are those known as solitary lesions of the lung. They are round or ovoid nodules with sharp or indefinite borders which are located completely within pulmonary tissue. Usually the nature of such lesions cannot be determined save by surgical resection and microscopic study.

Now that physicians are aware of the significance of such lesions, they are more often noted. It is important to have a roentgenologist's interpretation of a film in which such a lesion is seen, for the innuendo of his report is of considerable influence on the attitude of attending physicians. Whereas in the past a lesion might have been reported as "a small infiltration, probably old tuberculosis, inactive or healed," it is now reported as a localized pulmonary lesion of unknown nature. This focuses attention on the lesion and stimulates further investigation.

The diagnosis of intrathoracic masses can seldom be made with certainty by roentgenograms alone. Unless fairly conclusive evidence is obtained from the history, physical examination, laboratory studies, endoscopy, fluoroscopy and/or angiocardiography, exploratory thoracotomy is necessary for diagnosis and usually should be done unless the general condition of the patient precludes. It has long been accepted treatment to carry out exploration in the presence of larger lesions which either by roentgenogram or symptoms suggest carcinoma, but the smaller isolated asymptomatic pulmonary lesions have often been regarded as relatively innocuous and have been watched or forgotten. In recent years, however, a number of reports have appeared on series of cases in which such lesions were resected. In them it was noted that a rather high proportion of the lesions were tuberculomas (many of them containing viable tubercle bacilli) and a smaller but still alarming proportion were carcinomas (Table 1).

It is now generally accepted that tuberculomas should be resected not only for diagnosis but because of the possibility of release of bacilli and reactivation of tuberculosis. Black and Ackerman[5] reported that of 18 tuberculomas of the lung removed at exploratory thoracotomy, all contained encapsulated areas of caseous tuberculosis. Several investigators[2, 8, 12, 13] have expressed the opinion that if a tuberculoma contains calcium, watchful

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From the Veterans Administration Hospital, Oakland.

TABLE 1.—*Diagnosis of lesions in ten series of cases of solitary pulmonary lesions*

Reported by	Number of cases	Malignant Lesions No.	%	Bronchogenic Carcinoma No.	%	Metastatic Carcinoma	Tuberculoma No.	%	Undiagnosed Granuloma No.	%	Tuberculosis	Sarcoma	Lymphosarcoma	Thymoma
Grow et al[14]	86	20	23	....	....	..	....	....	....	....	....	....	....	....
O'Brien et al[17]	21	9	43	8	38	..	....	....	....	....	....	1	....	....
Effler et al[10]	24	4	15	1	....	1	7	29	....	....	1	1	1	....
Davis and Klepser[9]	67	37	55	33	49	2	17	25	....	....	....	1	1	....
Sharp and Kinsella[20]	55	15	27	11	20	3	11	20	11	20	....	....	1	....
Mahon and Forsee[16]	55	4	7	2	3.5	1	48	87	....	....	....	1	....	....
Effler[11]	16	7	43.7	6	37.5	1	3	....	....	....	5	....	....	....
Harrington[15]	16	5	31.2	2	12.5	3	....	....	4	25	....	....	....	....
Abeles and Ehrlich[1]	21	8	38	5	23	1	5	23.3	....	....	....	1	....	1
Wolpah[22]	25	8	32	6	25	2	7	28	3	12	....	....	....	....

waiting is justified. Tuttle,[21] however, pointed out that the mere presence of calcium in the lesion does not assure that it is not carcinoma. (In one case in the series reported upon herein, a bronchogenic carcinoma appeared, roentgenographically, to contain calcium.)

That carcinoma of the lung may remain unchanged in roentgenographic appearance for long periods of time is well known, and in one reported case a well differentiated epidermoid carcinoma of the lung was observed in roentgenograms taken from time to time over a period of eight years.[7] In light of this knowledge, the authors believe that any undiagnosed pulmonary lesion should be resected.

CLINICAL MATERIAL

In the six years 1947-1952 60 solitary lesions of the lung were noted in roentgenograms of the chest taken routinely of some 40,000 patients admitted to the Veterans Administration Hospital, Oakland, in that period. Diagnosis was ultimately made in 36 of the 60 cases (Table 2), in 24 by operation and in 12 by other means including autopsy, the finding of a primary tumor elsewhere, subsequent development of active tuberculosis or carcinomatosis. In a case of brucellosis pneumonia, diagnosis was made by clinical and laboratory methods and the patient was cured by treatment.

In 24 cases, most of them early in the series, the nature of the lesions was not determined. Thoracotomy was not done, usually because the patient felt healthy and was unwilling. In some instances, for various reasons, the attending physician did not feel operation was indicated. The latter factor has waned as the significance of the authors' statistics has become more apparent. At present, operation is advised and carried out in almost all cases.

SURGICAL PROCEDURE

The surgical procedure most often used was wedge resection of the peripheral lesions (see Table 3). Diagnosis then was made by examination of frozen sections and further operation was done when indicated. Lesions that were not peripheral were sometimes removed by enucleation. This did not seem quite as satisfactory, in that it is more difficult to remove an adequate margin of normal tissue and closely adjacent microscopic tubercles are more likely to be left in the lung. One large lesion was removed by segmental resection and one by lobectomy for diagnosis. In two instances in which carcinoma was inoperable owing to mediastinal lymph node metastasis, only exploration and excision of a specimen for biopsy were done. None of the 24 patients operated upon died. Complications occurred in only one case: Tuberculous empyema developed after enucleation of a tuberculoma, although tubercle bacilli did not grow on a culture of material from the lesion. The empyema was drained and soon healed under antibiotic treatment.

TABLE 2.—*Diagnoses of solitary pulmonary lesions in present series*

		No.	Per Cent
Bronchogenic carcinoma		8	22
Proved	7		
Clinical course	1		
Metastatic tumor (primary found elsewhere)		4	11
Granulomata		18	50
Tuberculoma	4		
Caseous nodule	2		
Nodule—subsequent active tuberculosis	3		
Type undetermined (probably tuberculosis)	5		
Fungus:			
Torula	1		
Type not determined	2		
Foreign body	1		
Hamartoma		3	8
Arteriovenous fistula		1	3
Brucellosis pneumonia		1	3
Pleural plaque		1	3
		36	100

POSTOPERATIVE TREATMENT

One patient was found to have nodular tuberculosis throughout the rest of the lung when the single lesion seen in a roentgenogram was resected. He was

TABLE 3.—*Surgical procedure, diagnosis and results in 24 cases*

Age	Operation	Diagnosis	Result and Period Observed
30	Lobectomy	Torula granuloma	Cure—6 years
21	Wedge resection	Active tuberculosis	Arrested by treatment—4 yr. 10 mo.
53	Exploration and biopsy	Inoperable epidermoid carcinoma of lung	Died, six months after operation
55	Excision	Pleural plaque	Cure
30	Wedge resection	Fungous granuloma	Cure—3 yr. 7 mo.
30	Wedge resection	Granuloma	Cure—3 yr. 6 mo.
70	Wedge resection, then lobectomy	Undifferentiated carcinoma of lung	Asymptomatic 3 yr.
60	Exploration and biopsy	Anaplastic bronchogenic carcinoma	Died, five months after operation
30	Enucleation	Hamartoma	Cure
36	Wedge resection	Granuloma	Cure—2 yr. 2 mo.
54	Superior segment then lobectomy	Poorly differentiated carcinoma of lung	Asymptomatic 1 yr. 11 mo.
26	Wedge resection	Fungous granuloma	Cure—1 yr. 10 mo.
43	Enucleation	Granuloma	Cure—1 yr. 9 mo.
61	Wedge resection, then lobectomy	Adenocarcinoma of lung	Died of brain metastasis 1 yr. post-operatively. Chest x-ray clear
55	Wedge resection	Tuberculoma	Cure—1 yr. 5 mo.
26	Wedge resection	Tuberculoma	Cure—1 yr. 4 mo.
27	Wedge resection	Granuloma	Cure—2 yr. 3 mo.
30	Wedge resection	Tuberculoma	Cure—2 yr. 1 mo.
37	Enucleation	Tuberculoma	Postoperative tuberculous empyema now healed, 1 year
53	Segmental resection	Arteriovenous fistula	Cure
28	Enucleation	Caseous tuberculoma	Cure—1 yr.
39	Enucleation	Foreign body granuloma	Cure
42	Wedge resection	Caseous granuloma	Cure—9 mo.
56	Wedge resection, then lobectomy	Squamous cell carcinoma of lung	Asymptomatic 8 mo.

treated with rest and antibiotics. Five other patients with tuberculomas and five with granulomas assumed to be tuberculomas because no other diagnosis could be made, were not treated by rest or antimicrobial therapy since it was felt the disease was confined to the lesions removed. In none of these cases has active tuberculosis become apparent to date.

DISCUSSION

In 36 of 60 cases in which solitary lesions of the lung were noted in routine roentgenograms the nature of the lesion was ultimately diagnosed. Eight were primary bronchogenic carcinomas, an incidence of 22 per cent. Four were metastatic carcinomas, which were not excised because the primary tumor was not controlled. Fourteen were localized tuberculous foci which are best treated by removal. In three cases in which solitary pulmonary lesions were seen roentgenographically but were not resected, active tuberculosis developed later. Carcinomatosis developed in one case from a pulmonary lesion that the patient refused to have removed.

Of the 24 patients operated upon, only four had lesions which were clinically benign—one foreign body granuloma, one pleural plaque, one hamartoma, and one arteriovenous fistula without clinical or physiological evidence of arteriovenous shunt.

In light of the high proportion of cases in which these lesions are found to be malignant or otherwise potentially inimical, it is felt that excision for diagnosis is indicated, since rarely can diagnosis be made by any other means.

Unlike other internal neoplasms, pulmonary lesions can frequently be detected in the presymptomatic phase by roentgenographic examination. Carcinoma of the lung may be cured by resection if operation is done before spread has occurred. Since asymptomatic tumors detected on routine roentgenograms are often confined to the lungs, routine roentgenographic examination of the chest at six-month intervals seems advisable, especially for men over 40 years of age.

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VA to Ask Financial Information in Non-Service Connected Cases

UNDER A NEW POLICY, Veterans Administration from now on will ask additional information from a veteran applying for hospitalization of a non-service connected condition. Previously, the veteran had only to answer the question: "Are you financially able to pay the necessary expense of hospitalization or domiciliary care?" If the answer was "no," the veteran was eligible. Now the veteran will be required to answer the following additional questions:

1. What is the current value of your property, real and personal? *2.* What is the current amount of your ready assets in the forms of cash, bank deposits, savings bonds, etc.? *3.* If you own real property, what is the approximate amount of the unpaid mortgage or other indebtedness? *4.* What are your average monthly expenditures, including mortgage payments and all other personal expenses, including your expenses for dependents? *5.* What was your average monthly income for the last six months, from all sources?

However, VA states that, "This addendum may be used in no way whatever to deny hospitalization to a veteran, as the law specifically provides that 'the statement under oath of the applicant . . . shall be accepted as sufficient evidence of inability to defray necessary expenses.' [It] is designed to protect applicants for hospitalization, and veterans generally, from charges of 'chiseling' on the government."

—A.M.A. Washington Letter

Management of Refractory Shock

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• *The one feature that characterizes all shock, regardless of its cause, is a reduction in the effective circulating blood volume. The reduced blood volume leads to decreased venous return, decreased cardiac output, vasoconstriction, tachycardia, hypotension, tissue anoxia and death if the sequence of events is uninterrupted. Immediate therapy must be directed at restoration of the blood volume, preferably with whole blood. Infection must be controlled by use of antibiotics intramuscularly and intravenously.*

If shock persists, aqueous adrenal extract should be administered in large quantities. As a last resort, a vasopressor should be tried.

SHOCK RESULTS from a breakdown in the normal circulatory efficiency. This efficiency is dependent upon normal blood volume, normal volume of the vascular bed and a normal myocardium.

Experimentally and clinically the one feature which characterizes shock is a reduction in the effective circulating blood volume. The blood volume deficit may be due to loss of whole blood or plasma or to sequestration of an abnormally large amount of blood in the splanchnic bed. In each case there is a reduction of the volume of circulating blood with a decrease in the volume of venous return to the right side of the heart and a decrease in cardiac output. In order to compensate for this, the body initiates the chain of events which characterize the compensatory phase of shock.

The mechanism of shock is still under study and at present it is not possible to give more than a consensus of opinion regarding the nature of the physiologic disturbance. As observed experimentally, traumatic shock and hemorrhagic shock, which are the most common kinds of clinical shock, are quite similar. In both fluid is lost from the intravascular space, owing to sequestration in the extravascular space in the one condition and bleeding in the other.

However, clinically the problem of shock is vastly more complex, for seldom if ever is only one mechanism of shock functioning. Usually the injured or sick person not only has loss of blood, but he also is affected by pain, anxiety and variations in temperature and moisture. In addition he is subject to the influence of any drugs that may be administered. Lastly, the ability of the patient's bodily defense mechanisms to compensate for any injury will depend to a great extent on his age and general physiological status at the time of the bodily insult.

The classical signs of shock comprise a symptom complex that is seen following hemorrhage, trauma, dehydration, electrolyte disturbances, anoxia, infection, neurogenic disturbances and myocardial decompensation. Any one of these mechanisms may initiate shock, and in many cases there may be two or more of these mechanisms functioning synergistically to intensify the shock state.

Part of a Symposium on Nutrition and Electrolytes presented before the Section on General Surgery at the 82nd Annual Session of the California Medical Association, Los Angeles, May 24-28, 1953.

The importance of loss of blood is well understood but the role of infection in shock is probably not adequately appreciated. Infection may decrease the volume of blood as a result of vomiting, diarrhea or exudation, as in peritonitis, pleurisy or pneumonia. The vascular bed may be dilated as a result of the effect of exotoxins on the capillaries. The exotoxins may cause profound myocardial depression. There may be interference with oxygenation as a result of toxic hemolysis of erythrocytes. Lastly it is possible that an anoxic liver can no longer detoxify the bacterial flora normally presented to it.

When a reduction in the volume of blood occurs, neuroadrenergic activity results in vasoconstriction in order to attempt to accommodate the vascular tree to the decreased volume of blood. The constriction is initially most intense peripherally in the skin and muscles but, if it persists, eventually involves the gastrointestinal tract, kidney, liver, brain and heart in that sequence. As a result of skin and kidney anoxia, a substance called V.E.M. (vasoexcitor material) is produced in excess. This acts on the precapillary sphincters to intensify the vasoconstriction in an attempt to shunt the blood to the more vital organs. If this process continues the liver becomes anoxic and produces a substance called V.D.M. (vasodepressor material). This relaxes the capillary sphincters, causing pronounced dilatation of the vascular tree. There then is sequestration of the blood from the circulation, which may so greatly intensify

shock that death may result. While loss of blood is the usual initiating agent of this sequence of events, anoxia, dehydration, electrolyte disturbances and other conditions will hasten or intensify the phase of decompensation.

Since in clinical shock the most common primary mechanism is loss of blood, rapid and adequate replacement of blood by transfusions usually corrects the deficit and the chain of events previously described can be averted. Theoretically and practically, the average healthy adult can lose 15 to 20 per cent of his blood volume without ill effect. Loss of 20 to 30 per cent of blood volume will cause mild shock. In the average person loss of 30 to 40 per cent of blood volume will result in moderate to severe shock. If more than that is lost, the shock state is usually severe. Unfortunately the person in shock is not always in the optimum physiological condition prior to the onset of shock. Therefore these figures are only rough approximations. After prolonged shock, even if the hypotensive state is rectified, several grave sequelae may result. These are cerebrovascular thrombosis, myocardial infarction and lower nephron nephrosis. Any of them may result in death or in delayed convalescence.

Patients in mild shock recover without need of restoration of blood volume, and in some cases of moderate shock minimal resuscitative measures are adequate. However, in many cases of moderate shock and in all in which the condition is severe, intensive therapy is necessary, for without it the patient may die. In a few cases hypotension persists despite the usual therapeutic measures but the patient does not die. This state is called refractory shock. Prominent among cases of shock of the latter type are those in which shock has been undiagnosed or untreated for a considerable period of time. Not uncommonly this occurs in a patient who is left unattended in the period immediately after a major operation.

In any case of refractory shock, many factors must be carefully appraised. If restoration of the blood volume has been inadequate, more blood must be given. Although care must be taken not to overexpand the circulating blood volume, it is much more common to underestimate the volume of fluid lost. Internal hemorrhage must always be considered and, if present, must be controlled by appropriate measures. The fluid and electrolyte balance must be corrected with water, sodium chloride and potassium chloride. Rarely, ammonium chloride will be needed to correct uncompensated refractory alkalosis. Infection, either as peritonitis or septicemia is occasionally unsuspected or overlooked in surgical cases. It must be vigorously treated with antibiotics. Administration of penicillin intramuscularly is not adequate therapy; one of the broad-spectrum antibiotics should be given intravenously. Although on theoretical grounds oxygen is not of much help in the treatment of shock, clinically its use is endorsed. The airway and lungs must be clear of obstruction and only the minimum quantity of narcotics and sedatives should be used since they all depress the respiratory center.

In addition to these possible causes of refractory shock, there are certain mechanisms unrelated to the primary shock problem which may prevent normal restoration of the hemodynamics unless specific measures are taken to overcome them. Intestinal obstruction, especially obstruction of strangulating type, may be overlooked in a patient in shock. Acute gastric dilation, a condition that can be relieved by insertion of a Levine tube, may be overlooked and cause the death of a patient in shock. Coronary occlusion or pulmonary embolus can cause an exaggeration or prolongation of the shock state. Acute hemorrhagic pancreatitis may supervene upon a preexisting state of shock, especially in a patient who recently has had an operation in the upper part of the abdomen.

Whole blood, properly typed and cross matched, is universally preferred as the most vital agent in the treatment of shock. It contains water, crystalloids, colloids and erythrocytes. When it is introduced into the circulation it is likely to remain there, not only because of the plasma colloids but because of the size of the erythrocytes, which cannot get through the normal capillary walls. In addition the added red cells act to increase the amount of oxygen that is carried to the tissues. While plasma was extensively used in World War II as a blood volume expander, it is falling into disuse save in emergency, for it causes hemodilution, will pass through the capillary wall, and does not provide red cells for transportation of oxygen. Whenever it is used to correct a deficit of more than 30 per cent in volume of blood, whole blood or washed red blood cells must be given to correct the anemia. A further disadvantage to the use of plasma is the possibility of post-infusion serum hepatitis. However, plasma is especially good to use in the early treatment of shock secondary to burns. Human albumin can be used in emergency as a temporary blood expander but it is very expensive and must be followed by infusion of blood.

Since World War II the colloid plasma volume expanders have been extensively studied. The drug upon which the most favorable reports in this country have been written, by both military and civilian investigators, is dextran, a storable, relatively nontoxic material that can be used without danger of serum hepatitis. When the blood volume deficit exceeds 30 per cent, although dextran is effective in initially relieving the shock state the resultant hemo-

dilution must be corrected with either whole blood or suspensions of washed erythrocytes as soon as possible.

The usual route for administration of blood is intravenously, and it may be desirable in severe shock to use two or three veins at once and to infuse it at a rapid rate. It is fallacious to withhold blood on the premise that raising the blood pressure to a normal level may "blow-out" thrombi and result in further hemorrhage.

Intra-arterial transfusions are being used more commonly. Certainly if there is any indication for intra-arterial transfusion it is in refractory shock. In the past the radial artery has been canulated and the distal portion ligated, but there have been some reports of gangrene of the hand as the result of inadequate flow of blood when this method was used, owing to absence of the palmar arch. This danger can be obviated by using any of the large arteries. The blood need not be infused under great pressure. In fact it has been reported that high pressures are deleterious. The blood should be given with an initial pressure of 80 to 90 mm. of mercury and kept 10 to 20 mm. above the systolic pressure. Once the systolic pressure reaches 110 to 120 mm. of mercury the need of the transfusion should be ended. On the basis of extensive hemodynamic observations, Maloney recently concluded that intra-arterial transfusions are no more efficacious than intravenous ones. However, it still would seem to be a worthwhile procedure in a patient with refractory shock.

In view of present knowledge, the eosinophil content of the blood should be determined in every case of refractory shock, and, if it is elevated, aqueous cortical extract should be administered intravenously —100 to 150 cc. of it in 500 or 1,000 cc. of fluids. This is a recommended therapeutic dose in the treatment of Addisonian crisis.

Cortisone and corticotropin (ACTH) have been suggested as therapeutic aids in the management of refractory shock. However, all investigators doubt their efficacy. If they are used, it must remembered that the effect of both is delayed. It takes two to four hours for corticotropin to reach its maximum effect and eight to twelve hours for cortisone. Therefore, when either is used, aqueous adrenal cortical extract should be used in conjunction for its immediate effect.

There is much dispute as to the value of the vasopressors in shock. Certainly in the vast majority of cases they do no long term good and may do harm. Nevertheless in some cases, especially if complicated by nerve or spinal cord damage, the vasopressors may be life-saving. Neosynephrin® is the safest agent to use, since it is least likely to cause increased myocardial irritability. One of the most satisfactory methods is to dissolve 10 or 20 mg. of Neosynephrin in a liter of fluid and then adjust the rate of infusion to keep the blood pressure at the desired level. Epinephrine or ephedrine may be administered intramuscularly.

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Clinical Experience with the Portable Electromagnetic Ballistocardiograph

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• *The purpose of ballistocardiography is to obtain a rough objective measurement of the strength of the heart beat. Recordings have been made with a portable electromagnetic instrument on 225 persons, some normal, others with many kinds of cardiovascular disease, to determine the usefulness of the ballistocardiograph. Tracings were made at certain stages of respiration at rest and after exercise.*

The ballistocardiograph can in some cases be the principal diagnostic instrument in distinguishing cardiac from extracardiac disease, in the early detection of coronary artery disease, and in the diagnosis of myocarditis. It also may aid in the diagnosis of high output failure, pericardial effusion, nicotine sensitivity and coarctation or other occlusive disease of the aorta.

BALLISTOCARDIOGRAPHY is a system for recording the forces generated by the movements of blood in and out of the heart and great vessels. While the physiologic functions reflected in ballistocardiographic waves are not thoroughly understood, the basic concept is not complicated. What is sought is a rough, objective measurement of the strength of the heart beat.

Impetus for the practical use of the ballistocardiograph stems from Dock's[5] studies and development of a small, inexpensive instrument. Clinical experience with a portable electromagnetic instrument has indicated the circumstances in which the ballistocardiogram may be of help to a practicing physician. For a comprehensive survey of the historical background and the theoretic considerations the reader is referred to the textbook by Brown and coworkers,[2] and to the work of Henderson,[10] Starr,[18] Nickerson[15] and Hamilton.[8]

MATERIALS AND METHODS

Ballistocardiograms were made on 225 persons; on some of these persons several tracings were made at intervals. The subjects included normal adults of all ages and patients with many kinds of cardiovascular disease. At the time of this report the study had been in progress 18 months.

The subject lies at rest on a heavy wooden table for five minutes before a tracing is taken. Light clothing may be worn but the shoes are removed. The feet are elevated on a sponge-covered stand four inches in height. A lightweight board bearing two electric coils is placed upon the shins. Between these coils, but supported by its own stand, a powerful magnet is placed. Pulsations of the circulation cause the coils, supported as they are by the shins, to move headward and footward in the magnetic field, this motion inducing a current which passes through the coils and is filtered through a condenser and transmitted to the right and left arm leads of a direct-writing electrocardiograph. Into this circuit, in series or parallel, a resistor is introduced in order to superimpose a QRS complex on the electrocardiogram for timing.

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Records are taken with the breath held, with normal respiration, with the breath held in deep expiration and in deep inspiration, and also, when indicated, after exercise. A light shoulder tap is used to detect movement of the body on the table, and to obviate technical error in the recording apparatus. This method of detection has proved to be a satisfactory substitute for the standardized weight and distance "foot-blow."[12] A standardization of 1 millivolt per centimeter of stylus deflection is used.

NORMAL FINDINGS

In a normal subject G, H, I, J, and K waves are recorded in systole and L, M, N, and O waves in diastole. As depicted in Chart 1, the H wave immediately follows the R peak of the electrocardiogram and the K wave corresponds to the end of the T wave and the electrocardiographic recording of systole.

What forces give rise to the various waves is still a matter of controversy. The G wave probably represents recoil from auricular systole; the H, the torsion of the ventricle during the period of isometric ventricular contraction and/or auricular systole; the I, footward recoil from ventricular ejection; the J, sudden deceleration of blood as it strikes the aortic arch and main pulmonary arteries; the K, deceleration of blood in the descending aorta as it meets

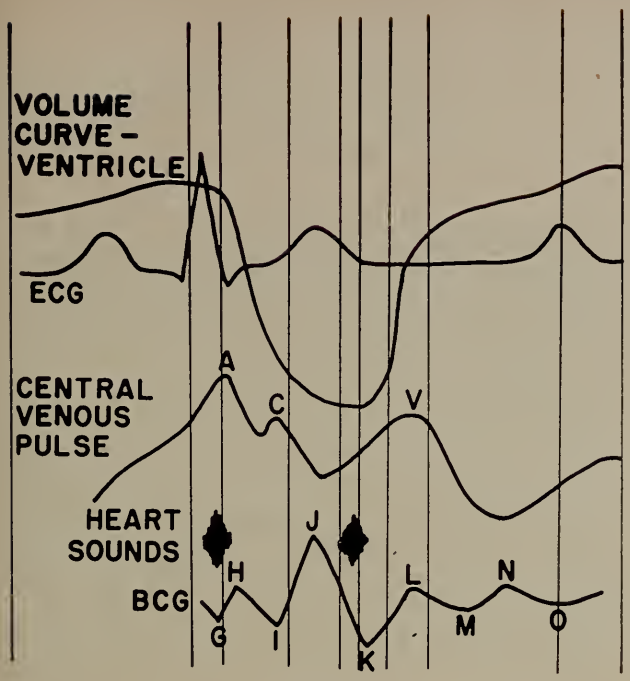

CHART 1

Time correlation of the ballistocardiogram (BCG) and electrocardiogram (ECG) with other events in the cardiac cycle.

peripheral resistance. The diastolic waves may be passive after vibrations[18] or may represent definite cardiovascular movements.[7, 9]

Normality is determined chiefly from the general repetitive pattern and relative amplitude of the waves. Measurements vary with each apparatus. With the apparatus here discussed, the J wave in a normal reading is at least 5 mm. in amplitude and the I wave about 2.5 mm. The JK stroke is ordinarily 1 or 2 mm. deeper than the IJ. The H is the smallest systolic wave, about 1.7 mm. in height. Normally peaks are rather sharp and without notching. Standards for the GK and QI intervals have been established experimentally,[11] but in the present study it has not been possible to formulate such standards precisely. On inspiration there is an increase in amplitude of the waves which does not normally exceed 40 per cent.

As Starr[19] and others have pointed out, there is a normal difference in the ballistocardiograms of older persons, principally diminution in the size of the I and J waves. In the series here reported, about 40 per cent of clinically normal subjects over the age of 50 years have records which are abnormal in comparison with young adult standards. With any subject, however, complete distortion of the pattern or sudden change from previous recordings probably indicates disease.

RESULTS

No attempt has been made to summarize findings in all the records taken. Instead, tracings are presented which illustrate clinical situations in which the ballistocardiogram can be useful.

Brown and DeLalla[2] have classified their records into four gradations of abnormality. Their system of terminology is not used in this report because it is an attempt to quantitate degrees of abnormality. As the instrument used in the present study is far from quantitative, three categories — normal, borderline, and abnormal—are employed. This presentation is limited to abnormalities in specific phases of the tracing and patterns found in specific diseases. Figure 1 is a normal record for comparison with the abnormal tracings.

1. *Alterations due to respiration.*

Although respiratory variations are normal, when the complex in the expiratory phase is completely bizarre, abnormality is indicated. Such a finding may be the first indication of coronary artery disease[12] as illustrated by Figure 2. Less striking, but definite changes can also be detected in anxiety states associated with vasomotor instability (Figure 3).

Normally, the record on deep inspiration is of definitely greater amplitude than that on deep expiration. In pericardial effusion this finding is reversed and a true "paradoxic" ballistocardiogram is obtained. Figure 4 illustrates this result and the return to normal after subsidence of the effusion.

Caccese and Schrager[3] have observed changes in the ballistocardiogram on smoking. Similar research has been reported by Mandelbaum and Mandelbaum,[13] who recommend the use of the ballistocardiograph as a detector of nicotine sensitivity and suggest that abnormal findings be considered a contraindication to smoking, particularly for persons with coronary artery disease. Figure 5 illustrates changes in the record of a subject who had symptoms of dizziness, chest discomfort, and cold, sweating palms on smoking and obtained complete relief by discontinuance of smoking.

2. *Primary myocardial disease — changes in wave relationships.*

Figures 6 and 7 illustrate changes observed in one case of periarteritis with myocardial involvement and in one of active rheumatic carditis. Although in these cases, heart involvement was evident by other methods of examination, the ballistocardiogram may be the only sign of abnormality in myocarditis.[6]

3. *Failure at high output—amplitude of the waves.*

The use of the ballistocardiogram as a measure of cardiac output is a controversial issue.[8, 16] Certainly, the instrument used in the present study, which is an indicator of velocity, is not a satisfactory measure of output.[1] However, inasmuch as the speed of systolic ejection may be related to stroke volume, some valuable information regarding the force of ven-

Ballistocardiograms Occurring in Various

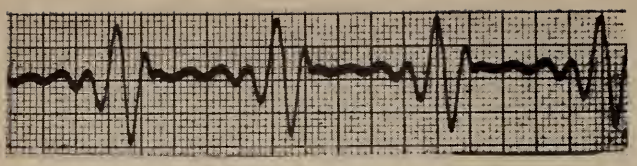

Figure 1.—Normal 46-year-old negro.

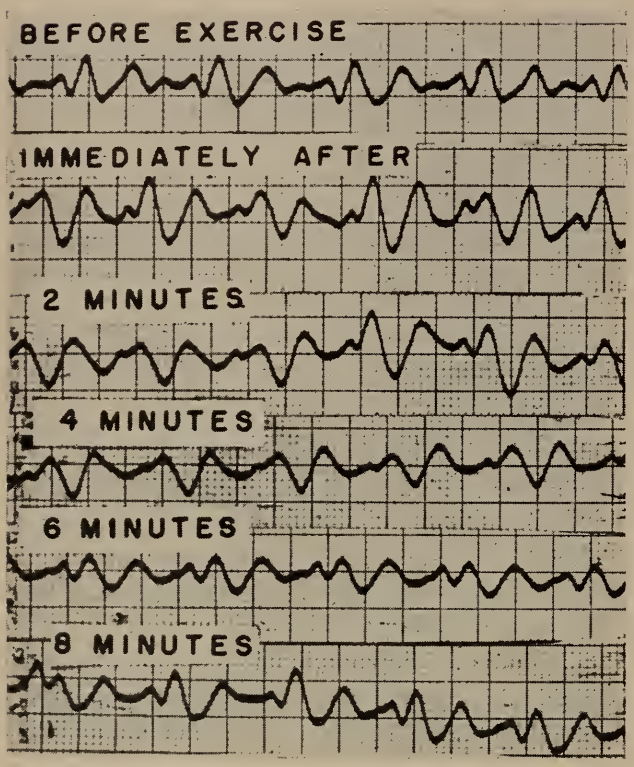

Figure 2.—A 40-year-old man who, upon exertion, had recurrent pain well localized to the fourth interspace, to the right of the sternum. An ECG had inverted T waves in leads 1, 2, and V6.

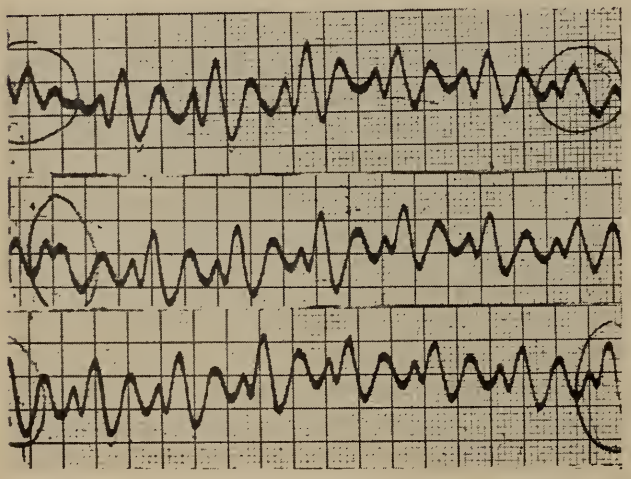

Figure 3.—A 30-year-old man with chronic anxiety reaction who had occasional pain simulating angina but precipitated by emotion and not by exercise. Note wide fluctuations of blood pressure indicating labile vasomotor system.

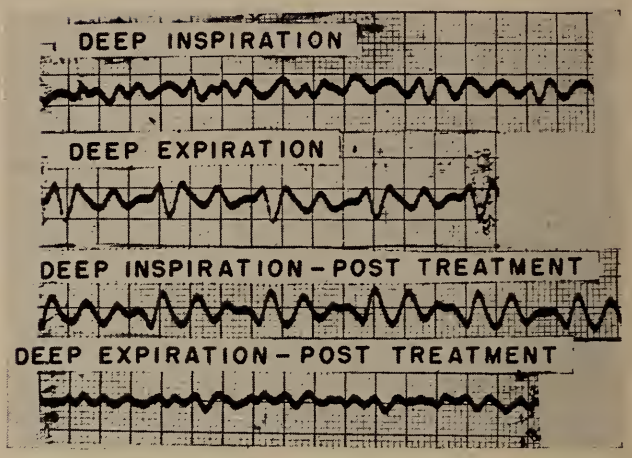

Figure 4.—A 52-year-old man with hypothyroidism, anasarca and pericardial effusion.

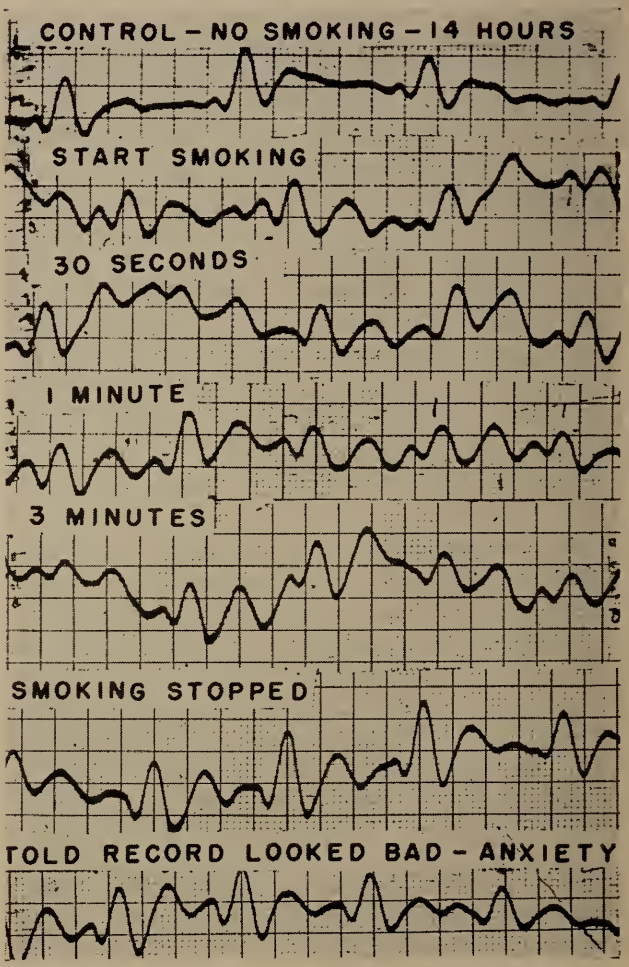

Figure 5.—A 32-year-old man who upon smoking had cold, moist palms and soles, palpitations, chest pain and, rarely, dizziness.

Illustrating Changes Clinical Conditions

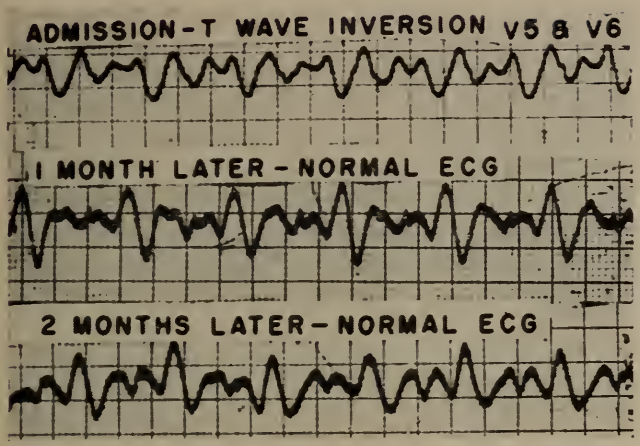

Figure 6.—A 30-year-old man in whom periarteritis nodosa was diagnosed on autopsy. No record was made in the month before death.

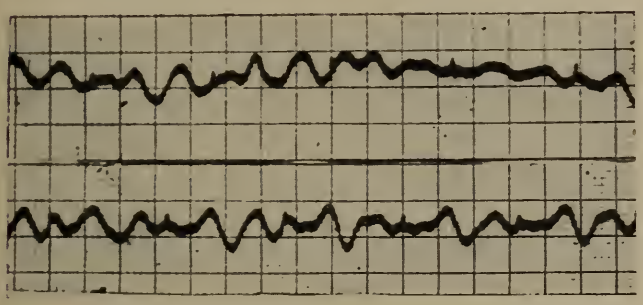

Figure 7.—A 35-year-old man with acute rheumatic carditis. The PR interval in the ECG was longer than normal.

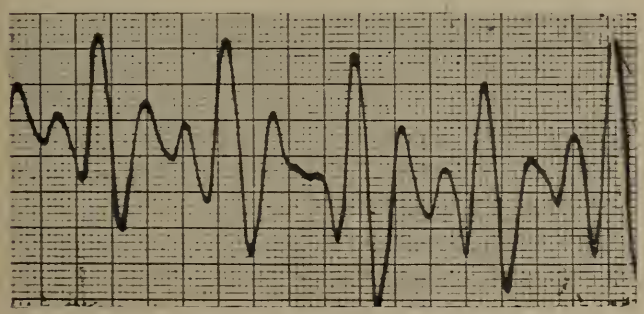

Figure 8.—A 47-year-old Chinese male with luetic aortic insufficiency in mild decompensation.

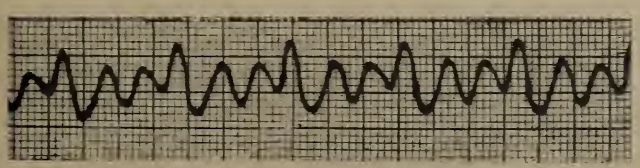

Figure 9.—A 29-year-old male with severe thyrotoxicosis and moderate cardiac decompensation. The cardiac output as measured by the Evans blue dye dilution method was 7 liters per minute.

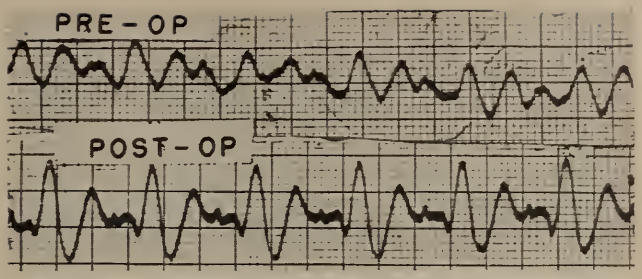

Figure 10.—A 36-year-old Mexican male with constrictive pericarditis.

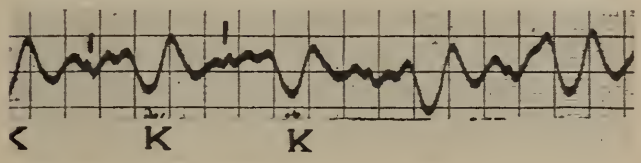

Figure 11.—A 59-year-old male with hypertension and mild decompensation. An ECG indicated enlargement of the left ventricle.

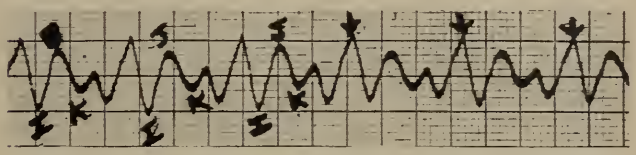

Figure 12.—A 57-year-old male in whom autopsy disclosed atherosclerosis of the abdominal aorta with thrombotic occlusion at the iliac bifurcation.

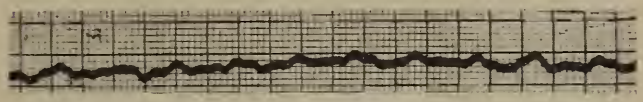

Figure 13.—A 45-year-old male with blood pressure of 160 mm. of mercury on systole and 90 mm. on diastole and with initial symptoms of vertigo and vomiting. Spinal fluid protein content was high. A diagnosis of arteriosclerotic brain disease was considered. The patient had had no angina and no abnormal findings were observed in an ordinary electrocardiogram or by the Master method.

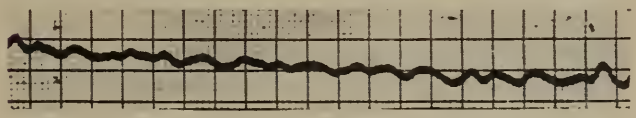

Figure 14.—A 35-year-old man with acute dyspnea and sweats but no discomfort in chest. There was evidence of neurotic tendencies. An inverted T wave in the V4 position was observed in the first electrocardiogram made, but subsequent tracings showed only normal patterns.

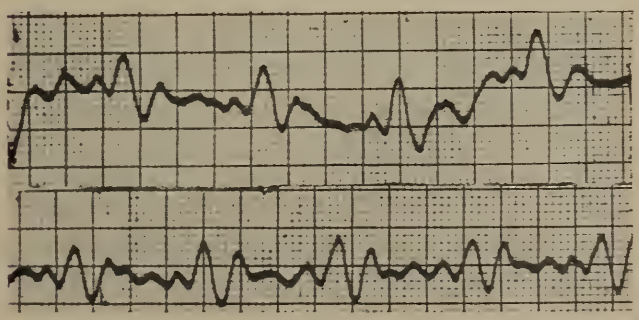

Figure 15.—A 41-year-old man in whom acute pain in the anterior chest began two weeks after an upper respiratory infection and was accentuated on inspiration. Low fever and increase in sedimentation rate were noted. No friction could be heard in the chest, and electrocardiographic findings were normal.

tricular systole can be gained from a study of IJ amplitude.

In cardiac failure at low output the ballistocardiographic waves are small and distorted. In failure at high output, however, they may be normal or increased in amplitude, while all the signs of myocardial failure are present. Shown in Figure 8 is a record on a case of aortic insufficiency and in Figure 9 on a case of thyrotoxic heart disease. In the latter case the minute output was determined by the dye dilution technique to be 7.2 liters. Figure 10 shows the effect on the waves of pericardiectomy in a case of constrictive pericarditis.

4. *K wave abnormalities—aortic obstructions and hypertension.*

The K wave can be used to detect increase or decrease of pressure in the aorta and in the vessels of the leg. Hypertension characteristically causes deep K waves. Hypertension with hypertensive heart disease causes deep K waves in combination with a small IJ wave (Figure 11).[17]

Shallow K waves may occur in peripheral arteriosclerosis and in occlusive disease of the aorta itself.[14] It would be expected that coarctation would have this effect: in the one case of coarctation studied in the series, however, the K wave was not shallow, presumably because the patient, a 60-year-old man whose feet were warm and foot pulses palpable, had developed a large collateral circulation.

In Figure 12 there is a small K wave recorded on a patient who at postmortem examination was found to have thrombotic occlusion of the aorta at the iliac bifurcation.

5. *Coronary artery disease—total loss of normal pattern.*

The most important use of the ballistocardiogram is in the detection and perhaps in the prognostication of coronary artery disease.[20] Taymor[21] and others have indicated how the electrocardiogram and the ballistocardiogram are complementary in the diagnosis of angina pectoris. In Figure 13 is the very abnormal record of a man who probably had coronary artery disease, although he had no symptoms of heart disease and electrocardiograms made at rest and after exercise disclosed no abnormality.

Figure 14 is a tracing on a young male who had attacks of dyspnea and sweating, without pain. He was a nervous person. Electrocardiographic findings were within normal limits, but pronounced abnormalities in the ballistocardiogram were strongly suggestive of organic heart disease.

The ballistocardiogram may also be of great help in ruling out suspected coronary disease. Figure 15 represents a case of acute benign pericarditis in a man in whom, because of his age and symptoms, a diagnosis of myocardial infarction had been considered. The normality of the ballistocardiographic tracings supported the diagnosis of benign disease, since in 95 per cent of cases of myocardial infarcts abnormality can be detected in tracings made over a period of several weeks.[21]

1245 Glendon Avenue.

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The Use of Silicones to Protect the Skin

GRANT MORROW, M.D., San Francisco

• *Silicote® ointment was used as a protective covering for the skin in the treatment of 107 patients with various kinds of dermatologic disease. In 83 the disease was cured or effectively controlled. It was particularly effective in conditions caused or aggravated by water-soluble or oil-soluble irritants.*

An ointment containing silicone fluid which forms a protective coating on the skin was used in the treatment of 107 patients with various dermatologic conditions.

The silicone fluids, known chemically as dimethylsiloxane polymers,[3] meet a need, long felt by dermatologists, for a preparation that can be used topically as a safe and effective protection against common irritants such as soaps, detergents, industrial chemicals and other allergens. They are inert, nontoxic, non-absorbable, non-sensitizing, adherent and water repellent; and they are invisible on the skin, do not interfere with tactile sensations and do not occlude perspiration.

In the present study the silicone used in the ointment was one that is known commercially as Dow-Corning 200 silicone fluid.[2] Barondes and co-workers,[1] in experiments with rats, noted that application of the fluid had no adverse effect on growth, mortality, appearance, behavior, blood or tissue. The fluids are non-sensitizing.[4] Talbot, MacGregor and Crowe,[6] who made the first report on clinical use of the substance, stated that applications of Silicote,® an ointment composed of 30 per cent Dow-Corning 200 silicone in U.S.P. petrolatum album, were effective in the management of 58 of 61 cases of various dermatologic conditions, including diaper rash, cutaneous irritation at the site of colostomy, intertrigo, decubitus ulcers and others in which protection from moisture was desirable.

The various kinds of dermatosis treated in the present series, the number of patients with each kind and the results are shown in Table 1.

Presented before the Section on Dermatology and Syphilology at the 82nd Annual Session of the California Medical Association, Los Angeles, May 24-28, 1953.

PRESENT STUDY

The patients, most of whom had been treated previously by conventional methods without benefit, were instructed to apply Silicote ointment to the affected areas of skin four times daily and to wipe off the excess with a moist towel. Cure or satisfactory control was obtained by 83 of the 107 patients (Table 1), the skin usually clearing in one to three weeks after use of the ointment was begun. The protective ointment was particularly effective in control of diseases caused by water-soluble and oil-soluble irritants.

DISCUSSION

Silicote ointment has no curative power. It simply protects the skin and permits healing to progress. Patients in the present series were instructed not to use the ointment constantly once healing had occurred, but to apply it only before they were to come into contact with offending agents. Many of the patients, having the protection of Silicote, were able to discontinue wearing cotton-lined rubber gloves and to omit other precautionary measures that formerly were more or less routinely prescribed in the management of the diseases they had.

TABLE 1.—*Results of use of Silicote as protective coating over affected areas in treatment of various kinds of dermatitis*

Type of Case	Number Patients	Cured or Satisfactorily Controlled	Not Relieved
1. Dermatitis venenata of the hands			
a) Housewives, bartenders, laboratory workers, dishwashers, beauty operators and nurses sensitive to soaps, detergents, plants, dyes, tints and chemicals	69	66	3
b) Locomotive firemen and engineers—diesel oil dermatitis	9	0	9
2. Circumscribed neurodermatitis*—perianal, arms and legs	23	13	10
3. Atopic dermatitis of the face, arms and legs—sensitivity to wool, starch, soaps	4	3	1
4. Nummular eczema of the hands	2	1	1
	107	83	24

*Actually contact dermatitis with secondary lichenification.

As Silicote causes temporary burning sensation in the eyes if it comes in contact with them, it should not be applied to the eyelids.[5] The ointment should not be applied to "weeping" areas of skin. In such conditions conventional treatment should be carried out and Silicote used only to prevent recurrence.

The silicone fluids were first compounded in water-dispersible bases, but the film appplied to the skin by use of such preparations peeled off too easily to give adequate protection.

An indication of the integrity of the protective coating formed by Silicote was the observation that to remove it from the skin required three or four scrubbings with soap and water.

Sensitivity to Silicote did not develop in any patient in a period of more than a year of observation.

909 Hyde Street.

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Three New Members on Legislative Committee

THE BOARD OF TRUSTEES of the American Medical Association recently appointed three new members to the A.M.A. Legislative Committee. They are: Drs. R. B. Chrisman, Miami; Harlan English, Danville, Ill., and John E. McDonald, Tulsa, Okla.

The board accepted with regret the resignations of Dr. F. J. L. Blasingame, who has been serving as chairman of the committee, and Dr. Julian Price, who has been serving as a member. Both said that the pressure of other commitments, along with their work as members of the Board of Trustees, made it impossible for them to serve any longer.

The committee later elected Dr. David B. Allman, Atlantic City, a member of the board, as its chairman.

Besides Drs. Allman, Chrisman, English and McDonald, the other members of the Legislative Committee, which was first appointed by the board in 1949 at the direction of the House of Delegates, are:

Drs. Clark Bailey, Harlan, Ky.; J. Lafe Ludwig, Los Angeles; J. D. McCarthy, Omaha; Chauncey L. Palmer, Pittsburgh, Pa.; McKinnie L. Phelps, Denver; Deering G. Smith, Nashua, N. H., and Mr. C. Joseph Stetler, Chicago, secretary.

The committee is working out plans to hold a number of regional meetings throughout the country.

—The A.M.A. Secretary's Letter

Paternal Domination as a Cause of Somnambulism

B. I. KAHN, *Cmdr., MC, USN*, San Francisco, and
R. L. JORDAN, *Lt. (j.g.), MC, USNR*, Los Angeles

• The cases of 15 men admitted to the neuropsychiatric service of a Navy hospital for somnambulism indicate that sleepwalking is an aggressive or sexual motor activity seemingly aimed primarily at a fear-inspiring father. Although the patients varied in age from 18 to 36 years and in rank from seaman to chief petty officer, eight being married and seven single, all were from small-town or rural homes in the low economic class. Their training was religious and strict. They professed great respect for their fathers, to the extent that they could not criticize them or acknowledge hostility toward them. Their relations with their mothers were in general not satisfactory.

Apparently fear of the father and the inability to express resentment or aggression was applied to all situations so that the suppressed feelings could be released only in sleepwalking, nightmares and fantasies. These abnormalities, by making the patients conspicuous, increased their terror and anxiety.

It is emphasized that sleepwalking activities, far from being harmless, may endanger the patient or those about him.

Long-term psychotherapy is necessary for the disorders manifested by somnambulism.

SOMNAMBULISM IS FREQUENTLY considered a minor extension of a psychoneurotic syndrome.[5] Often the patient is either too ashamed of his behavior to discuss it in therapy, accepting it as an evil habit to be regarded somewhat like masturbation, or he attempts to ignore it because he is dissuaded from seeking therapy by the jeers of his parents. Some somnambulists do not understand their condition to be a medical problem and do not know where to turn. In many cases when a physician is consulted, he encourages the patient to forget—perhaps to marry—or prescribes sedatives and gives assurance that in time the symptom will be outgrown.

In the armed forces there is, of course, considerably greater opportunity for the recognition of the condition, although the patient is faced with the same problem as in civilian life. The men about him may consider his nocturnal activity with indulgent amusement, referring to him as the comedian in their midst, or they may react with considerable anxiety to having a "queer" person in their midst. Not infrequently when the condition is reported, the medical officer consulted may consider the symptom not worthy of further investigation.

Legend and folklore present sleepwalking as an innocuous nocturnal exercise. The sleepwalker appears as an amusing figure in plays and movies, often with a thinly oriented sexual motivation. However, like most folklore, such interpretation is an ironic distortion of facts. The significance of the symptom cannot be ignored or ridiculed. Sandler[6] stated, "Somnambulism represents a direct threat to the sleepwalking soldier, for during his nocturnal perambulations he may injure himself or be shot because of failure to halt at the guard's command."

The indifference which stems from ignorance of the symptoms seemingly encourages the somnambulist to attempt to accept his disorder with complacency; but this attitude was not easy for the patients whose cases are here presented; they exhibited a tremendous amount of anxiety and were constantly fearful they would do bodily harm to themselves or others while walking in their sleep. They recognized their ineffectuality in their assignments and were chiefly concerned about what might happen to them while they were asleep.

The material for this presentation was obtained from the study of 15 men who were admitted to the neuropsychiatric service of the U. S. Naval Hospital, Oakland, with "sleepwalking" as the chief complaint or as the secondary complaint incidental to a neuropsychiatric diagnosis. The data amplified herein were obtained from personal interviews with the patients and with their friends and relatives, and from psychologic tests. The purpose of the study was twofold: To determine what personality patterns, character profiles, and family constellations were common to the patients, and to evaluate

From the Neuropsychiatric Service, United States Naval Hospital, Oakland.

The opinions expressed are those of the authors, and are not to be construed as official or reflecting the views of the Navy Department or the Naval Service at large.

Presented before the Section on Psychiatry and Neurology at the 82nd Annual Session of the California Medical Association, Los Angeles, May 24-28, 1953.

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the dangers of sleepwalking, both to the patient and to those about him. The results of this study are sufficiently uniform and consistent to be considered valid and reliable data with respect to the background and personality resulting in somnambulism.

The patients included in the study varied in age from 18 to 36 years; they had been in the Navy from 3 months to 16 years. Their ratings ranged from seaman to chief petty officer. Of the 8 married men, 6 were over 25 years of age; of the 7 single men, only 1 was 25 years old. They came predominantly from farms or small towns in the Midwest or the South; all had been reared in the American culture so well typified in "Smalltown," and were in the low but not the lowest economic groups.

The similarity of family background brought out in the study appears to result from certain parental characteristics. In each case the members of the patient's family were all regular churchgoers. Five patients were Baptists, 2 were members of the Church of God, 1 a Seventh Day Adventist, 1 a member of the Pentecostal Church, 1 was a Roman Catholic, and 2 were from families in which one parent was Roman Catholic and the other Protestant. Three did not express religious preferences other than Protestant.

Of the 15 patients observed, 13 were admitted to the neuropsychiatric service for observation because of disturbing nightmares and, in most cases, sleepwalking. All reported lifelong somnambulism. The frequency of their nocturnal walking varied from once in several years to three or four times weekly. The frequency for each individual was found to be constant in spite of changes in situation. The general environment had little to do with their activity, but all admitted sleepwalking was a manifestation of their anxiety about emotions experienced in connection with anger-inciting events about which they could not bring themselves to express overt hostility during the day. One of the patients could predict that he would walk in his sleep if he became emotionally upset during the day.

Somnambulism is the symptom of dissociated mass motor activity, not necessarily walking (one patient was crawling on hands and knees toward the rim of a deck when he was awakened by striking his head against a stanchion). The literature on the nature of this expression of neurosis is limited. Menninger[4] discussed similarities between sleepwalking and the unrealistic behavior of certain types of patients and indicated sleepwalkers do not ever become schizophrenic. Fenichel[2] suggested that sleepwalking expresses motor restlessness in consequence of unreleased internal tension developing through the day. Sandler[6] in his monograph accepted essentially the same mechanism. Abraham[1] stated the somnambulist converts his fantasies into more or less complicated actions which he cannot recall on awakening. Jones[3] stated that the purpose in sleepwalking is disguised. None of these observers has brought out the relationship of sleepwalking to the manifest content of dreams, which in the series here reported was so striking. Most of the patients studied described at some length dreams connected with snakes. The sexual symbolism woven around dreams of snakes is by now too well known for repetition.

The study revealed a striking similarity in the personalities of the patients. Although their perceptive powers were better than average, their intellectual faculties normal or above average, and their memories intact, verbalization of difficulties with respect to feelings concerning their thoughts was all but impossible. These difficulties, in general, revolved around a distorted relationship with their fathers. They spoke with apprehensive reluctance of their wives, expressing deep concern for their cloudy future, feeling indecently stigmatized by such an obscure psychological defect—judging themselves as they thought others judged them. They were highly voluble about the opinion of others with respect to themselves. Emotionally somewhat naive, labile and immature, under a considerable degree of tension and with only a minimal tolerance to anxiety, they tearfully expressed an inability to externalize their deeper emotions. Frightened at their role in the world and inhibited in all personal relationships, they lived in fear of each approaching night. One patient, in a childish attempt to gain approval from shipmates, described his somnambulism with a pathetic histrionic pride.

The chief identification figure of these men was an authoritarian father, to whom they reacted by an inordinate drive for success to emulate or perhaps to surpass him. They felt hostility about what they considered indifference to them of maternal figures. All revealed that sexual and aggressive impulses were severely repressed. It was difficult for them to have any type of long-term sexual relationship or to express anger at superiors. Their interpersonal relationships were highly ambivalent and tinged with anxiety. When sudden situations developed aboard ship, at home, or in community life, which they had made no plans for handling, they verged on panic. The normal tension-relieving devices on which most people lean were replaced in these patients only by rich fantasy in which they were authoritarian figures who could express resentment and aggression without fear of retaliation.

While aboard ship, because the patients could not indulge in the expression of anger, resentment or hostility, they became more and more anxious; as the normal tensions incidental to the day's activity mounted, their relieving devices instead of being acted out in a meaningful manner were utilized pre-

dominantly at night in motor activity. Another factor increasing their anxiety was the concomitant fear of each approaching night. They did not know what their nocturnal activities might lead them to do.

Physical examination, electroencephalography and all other tests to rule out organic or metabolic factors as an etiologic element disclosed no abnormality in any of the patients.

To understand the sleepwalker adequately, it is essential to understand his family. Attention has been called to the similarity of family background in the patients. Significantly, there was not a divorce or separation among the parents of any of the sleepwalkers studied in this series. The only second marriage occurred following the death of a spouse.

The patients described their fathers in almost lyrical terms comparable to extracts from Father's Day cards: "The best dad a boy could have," "the perfect father," "a swell pal," etc. The fathers were unusually stable in occupation (several had retired after long years of service in the employment of only one company); they were considered honest and reliable men, well thought of in the community, the type of father a son could emulate. Even to speak disparagingly of such fathers seemed to the patients positively sinful. Frequently the fathers were officials in the church, or at least well known and regular churchgoers. The relationship between the patients and their fathers was, according to American cultural standards, of the type regarded as most conducive to inculcating paternalistic ideals into the sons. This relationship, however, appears unrealistic, for while an authoritarian figure may be respected or admired, it is difficult to love wholeheartedly when subjected to harsh, reproving measures and stern unyielding discipline.

Sandler[6] pointed out this identical pattern, stating: "The fathers in the entire group were feared, respected and idolized; the soldiers painted a consistently rosy picture of their fathers. Some of the 22 men were so emotionally attached to their fathers that they had selected the same vocations and expressed considerable satisfaction at having worked with their fathers. In contrast to the fathers, 17 of the mothers were placed in the inferior category . . ." In this series, the mothers were described as being submissive to their husbands, frequently nervous, sickly; and while several did report a rather punitive mother, it is significant that few of the patients had a really close relationship with the mother. None of them spoke of her with the tenderness exemplified in American culture. American culture at present tends to relegate the father to a submissive role and make the mother the authoritarian family figure. This would seem to indicate that in the family of the sleepwalker there is a pathologic distortion of what should be "normal" American standards. The seniority of the patients in their families was not significantly consistent; they ranged from the older of two children to the youngest of ten. The relationship of the patient to his siblings would bear further study in this connection.

When patients were able to express their feelings, they did show some affective lightening of tension; nonetheless, it is the opinion of the authors that psychotherapy for somnambulism must be on a long-term basis and is not suitable for the naval service. The history of long-term psychological maladjustment, stemming from fear of retribution and inadequate resolution of oedipal conflicts, growing more severe from early childhood, would in itself suggest a poor prognosis.

The data in this study indicate the somnambulist is, in general, infantile, naive, emotionally labile, impulsive, moderately histrionic and egocentric. He is constantly fearful of tension which has reached proportions so severe as to induce a nocturnal type of acting out of aggressive or sexual impulses the admission of which is too frightening for him to contemplate. This exaggerated tension stems from childhood repression of hostility to the parental figure. Overtly, the patient wishes to emulate a strong father, who looms to him as a large and threatening male figure. Concomitantly, there is a feeling of being abandoned by a timid, indifferent, and/or ineffectual mother. The parental roles are pathologically restricted and aggressive impulses are of such intensity as to result in an emotional trauma of lifelong duration. The maternal functions of solicitude, interest, support and protection are apparently lacking because—or so the patients implied—the mother is also terrified by her stern husband. The emulation arises from fear and requires the child to create for himself a restrictive pattern which is all-pervasive; an ineffectual effort to protect him from his own fear of retribution.

To this repression the patient reacts by acting out in a dream world the distorted fantasies he has about all authoritarian figures (fathers, officers, stern superiors) which culminate in night walking.

Sleepwalking, therefore, is an aggressive or sexual motor activity seemingly aimed primarily at a fear-inspiring father.

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The Maternal Welfare Committee of San Diego

An Educational Function to Save the Lives of Mothers and Babies

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• *A maternal welfare committee was founded in 1947 by representatives of nine hospitals in San Diego County, with the purpose of inquiring into all deaths involving maternity in order to reduce maternal mortality. At open meetings cases of such death are reviewed and a vote is taken on whether the death was preventable. Deaths of newborn children are also investigated for preventable factors.*

From 1947 to 1952 the maternal mortality rate has declined among residents of the county from 7.3 per ten thousand live births to 2.7. It is believed that the emphasis placed on high standards of prenatal and postpartum care by the committee's observations has greatly aided in securing this improvement.

FOR SOME YEARS we have had in this country stimulating and provocative reports from various maternal mortality (often termed maternal welfare) committees.[3,4,6,7,8] Starting with the Philadelphia group in the early thirties, these committees have done much to teach medical students, general practitioners and specialists.[1, 11] They have searched into the causes of obstetrical deaths, pointing out deficiencies on the part of the patient, the physician and/or the hospital.[5] They have discussed preventability, and have done much to improve standards of obstetric practice. In later years, as maternal mortality was lessening, these committees began in some localities to analyze fetal deaths and to discuss the problem of premature birth. The idea spread rapidly. The work of such groups is an important facet in the reduction of maternal and fetal mortality.

In 1947 a similar maternal welfare committee was organized in San Diego through the stimulus of a physician in private practice and another in the San Diego Health Department. The founding members were nine physicians, representing nine hospitals in San Diego County, who stated their purpose to cooperate with the city and county health departments on all problems of maternal and infant health, and to seek ways and means of improving the practice of obstetrics and infant care in the county. There was no medical school in the locality and the committee had no special monies or grants.

San Diego County has a population of about 630,000 with 434,000 living in the city. There is a large military population and quite a shifting civilian population. The county and town are rapidly growing, as is the medical society. Half of the physicians have arrived since World War II. About 35 specialists form the obstetrical and gynecological society.

From the year 1947 through 1950 there were approximately 14,000 live births per year in the county; this figure jumped to 16,000 in 1951 and to 20,745 in 1952. Of all these live births approximately 2,400 were "non-resident" (that is, the mothers resided out of the county), and 40 per cent took place in military hospitals under the care of Navy physicians. In 1952, 99.4 per cent of deliveries took place in hospitals.

The San Diego Maternal and Neonatal Welfare Committee has held regular meetings and has discussed every death due to childbirth since 1947. In later years the members have expressed an opinion as to whether each death was preventable or non-preventable. During the six years of its existence the committee has accomplished the following:

a. Obtained the endorsement of the San Diego Gynecological Society, the San Diego Pediatric Society and the San Diego County Medical Society.

b. Formulated a Maternal Mortality Questionnaire patterned after the one used by the Philadelphia committee.

c. Educated the physicians of San Diego County relative to its purposes and methods of operation.

d. Very successfully stimulated and educated the nurses of obstetrical departments and nurseries. This group has been most eager to learn, to improve standards of care, and to cooperate with the the physicians. In April 1948 the nurses, realizing that their problems were somewhat different from those of the physicians, organized their own subdivision, known as "the branch." Two chosen representatives of the branch attend the physicians' meetings, take notes, and make reports to their own members. The phy-

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sicians in turn have a counselor to attend the branch meetings. The nurses have held regular meetings, elected their own officers and conducted their own programs. Their attendance has been good and each hospital of San Diego County is usually represented at their meetings. They have discussed a great number of obstetric and nursery problems and procedures. They have developed a manual on standardization of nursing methods and techniques. Many of their discussions and ideas have borne fruit.

e. Suggested standards for hospital consultations in obstetrics and encouraged early consultation.

f. Formed, in 1949, a committee which has reviewed the birth and death certificates in all neonatal deaths in which the infant weighed over 1,500 gm. A neonatal questionnaire has been formulated to be sent to the attending physician in each case in which the committee feels death was possibly preventable or in which there were features that could be instructive.

g. Discussed cases in which the mothers were critically ill but survived.

Meetings are held four to six times annually. To increase attendance and to acquaint more physicians with the program, meetings are rotated through the various hospitals of the county. They are held in lieu of regular hospital staff meetings.

A questionnaire is sent to the attending physician or physicians on each maternal or fetal death that is to be investigated. An effort is made to assemble the case history immediately upon report of the death by the Health Department. The physicians concerned with the case are notified as to the date of presentation. Pediatricians and all physicians practicing obstetrics in the county are invited to attend, including osteopathic physicians and surgeons, who operate one hospital in the city. The case history is presented by the presiding officer without mention of names, and constructive discussion from the floor is encouraged. A vote is taken as to whether the death was preventable. If the death is deemed to have been preventable, a letter is written to the hospital concerned and a request made that the case be further discussed at the staff meeting. The Health Department has been very generous in supplying a recorder and has accomplished administrative details.

Over a six-year period maternal deaths among residents in San Diego County numbered as follows (with rate per ten thousand live births):

	1947	1948	1949	1950	1951	1952
Deaths	10	10	7	6	7	5
Rate	7.3	7.5	5.0	4.3	4.4	2.7

Since good prenatal care is so important in obstetrics, deaths of non-residents are more correctly attributed, in such reporting, to the county of residence. There were one such death in the county in 1948, two in 1951 and one in 1952. Aside from statistical considerations, a maternal welfare committee should recognize and inquire into deaths of non-residents.

TABLE 1.—*Causes of all maternal deaths in San Diego County, 1947-1952*

Cause	No. of Cases
Septic abortion	3
Ectopic pregnancy	2
Toxemia:	
Preeclampsia	4
Eclampsia	9
Other toxemias	3
Postpartum hemorrhage	13
Ruptured uterus	1
Blood transfusion reaction	1
Cardiac complication	7
Anaphylactic drug reaction	1
Pulmonary embolism	4
Anesthesia	2
Shock and hemorrhage:	
Podalic version and dystocia	1
Forceps delivery with hematoma and infection	1
Postpartum shock and anemia	1
Pneumonia	1
Cancer (melanoma)	1
	55

The causes of all maternal deaths for the same years are shown in Table 1. It should be noted that toxemia and hemorrhage are the most important causes. Infection, third in importance, is also an accessory factor in deaths from other primary causes, with heart disease a close fourth.

It must be remembered that according to the manual of the International Classification of Diseases, Injuries and Causes of Death, only deaths certified as due primarily to obstetrical complications are attributed to this cause. The error which may arise from this limitation is exemplified by the deaths in 1952 of two women with heart disease, both of whom were delivered near term, one by cesarean section. For statistical purposes the deaths were considered due to heart disease. To consider such cases, a maternal welfare committee must have information about all women who have been pregnant within three months of death. A better means than the certificate of death should be found for learning of such cases.

In addition to the two deaths mentioned for 1952, there were five other deaths of pregnant women which were not attributed to maternity. In all five cases the patients died undelivered. The causes of death and the duration of pregnancy in these cases were: anterior bulbar poliomyelitis (6 months); hemorrhage, esophageal varices, cirrhosis of liver (6 months); acute gangrenous endometritis with hemorrhage (first trimester); acute coronary thrombosis (5 months); intrapericardial hemorrhage (5½ months). It is probable that the death due to endo-

metritis should also have been considered a maternal death. Nevertheless, the total of 13 maternal deaths from all causes, including that of a non-resident, should be considered against the total of 21,030 live births, a rate of less than 1 in 1,600.

No progress has been made, however, in reducing the neonatal death rate, a problem which constitutes the next great challenge in obstetrics, and which requires intensive study. Sixty-four per cent of all neonatal deaths are among premature infants. The death rates for resident newborn children (less than one month of age) for six years were as follows:

	1947	1948	1949	1950	1951	1952
Live births	13,771	13,302	13,890	13,838	15,816	18,401
Deaths	238	276	286	273	293	377
Rate per thousand	20.6	20.7	20.6	19.7	18.5	20.5

CONCLUSIONS

It is the author's opinion that a maternal and neonatal welfare committee as described here is a very beneficial organization. The mere investigation of a maternal or neonatal death and the discussion of it before a welfare committee has the salutary effect of making physicians doing obstetrics more conscious of abnormalities which may cause maternal or fetal death. Knowing that someone is seriously interested and that each case will be reviewed will lead to earlier consultations and more adequate care. Further, such reviews offer the most practical and most impressive method of teaching interns, residents and practicing physicians. This valuable material should not be restricted to individual hospital staffs.

As the problem of neonatal and maternal care is not limited to the physician who delivers the patient but concerns also the biostatisticians, nutritionists, social workers, public health nurses, the health department, hospitals and the general public, a maternal welfare committee can function more efficiently and with greater effect than can separate workers.

One of the most desirable features is the cooperation and better understanding between physicians in private practice and the health department. In 1952 the State of California held two large meetings on the causes of prematurity,[9] the first such meetings sponsored by a health department and significant as representing a new interest by health departments in the problem of prematurity. Another example of this interest is "The Prevention of Needless Neonatal Deaths" by Bundesen, Potter and co-workers.[2]

After studying the case reports on mothers who have died in San Diego County in the past six years, the author believes that much additional progress can be made. The maternal mortality rate can be further reduced if strict attention is given to details. Items for consideration are:

1. Prenatal care can be improved. This often involves problems of patient finances and education, sometimes of transportation and of legal residence and eligibility for care in county hospitals.

2. Facilities for good neonatal care, especially for premature babies, are lacking in many hospitals. Standards, techniques and equipment must be improved.

3. Obstetrical and pediatric consultation in many cases should be requested earlier.

4. Blood must be made available on an emergency basis for every delivery. Cross-matching and provision for transportation must be arranged beforehand. (Recently a death due to placenta previa with postpartum hemorrhage occurred in a well-equipped, modern hospital and under the attendance of well-trained and competent physicians. Unfortunately delivery occurred at a time when no blood was immediately available.)

It is suggested that every county, or groups of counties, organize a maternal welfare committee. It would be a most progressive step to study carefully and present for constructive and educational purposes every case of maternal death.

As most babies are delivered by physicians in general practice, general practitioners must bear their share of responsibility for organizing and serving on such committees. By using all the improved techniques, medications, facilities and knowledge of modern obstetrics the present maternal mortality rate in California can be decreased by 25 per cent. A maternal welfare committee is a powerful stimulus to achievement of this objective.

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Industrial Dermatologic Problems

Interrelationships Between Physician, Patient, Employer and Insurance Carrier

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• *Dermatologists, employers, insurance carriers and patients often flounder in misunderstanding when dealing with industrial dermatosis. A large part of such misunderstanding stems from too limited a knowledge of compensation insurance law by physicians, employee-patients and many employers. Physicians dealing with industrial cases should not only familiarize themselves with compensation law and insurance practices, but take it upon themselves to interpret such considerations to their employee-patients and, where necessary, to their patients' employers. Present-day employer-employee relationships are frequently on a most impersonal basis, and great mutual benefit will accrue to all parties when the position and objectives of each are understood by the others and the provisions and limitations of the law are known to all. The dermatologist handling industrial cases must take the responsibility of bringing this about.*

THIS "ETERNAL QUADRANGLE" — the interrelationships between physician, patient, employer and insurance carrier — in which a dermatologist finds himself when he undertakes the treatment of a patient with a skin disease caused by the nature of his job, is packed with potential misunderstandings and ill feelings. In the first place, a dermatologist is all too likely to look upon a case of industrial dermatosis as one in which he will have a disgruntled patient to take care of, at least one detailed report to render, and probably a controversy with the employer and/or insurance carrier. Then, to cap the climax, he will be paid on the basis of a fee schedule which is thrust upon him and is considerably lower than his regular schedule. He may even develop a blind spot for the diagnosis of industrial dermatosis and, consciously or unconsciously, seek to justify some other diagnosis. This self-deception is always unfortunate and futile, for when the true nature of the case at last is recognized, as it must be in intellectual honesty, the situation is much more complicated and troublesome than it would have been had the nature of the case been recognized at the outset.

A dermatologist may find in his patient not only a dermatologic problem but a person who wants to blame all his troubles on his job and to ascribe all the hazards of it to faults of his employer. Such a patient may be determined to see that he gets all that is coming to him from the insurance carrier; he may proclaim that his union representative has warned him to beware of sharp practices in cases of industrial illness and let it be known he is ready to demand his rights. If he was sent to the dermatologist by his employer or the insurance carrier, he may look upon the dermatologist as a minion of the money-eyed interests who is certain to be prejudiced in their favor.

On the other hand the employer, or the employer's representative in employee relationships, may be a person who is loath to believe that the employee's dermatosis is caused by his work ("none of the other workers have it"); or one who thinks it is the fault of the employee for not having been more careful. Often a small employer carries workingman's compensation insurance only because he is compelled to do so by law and he rarely understands the first principles of it in theory or practice. He may be anxious to replace a disabled employee immediately rather than await his recovery, especially if it appears that the employee will have to have special protection or be transferred to a different type of work.

A dermatologist's dealings with insurance carriers depend a great deal upon his own approach to them. If in his first contact with them he is prompt, factual and frank, he will probably find them eager to cooperate; if he delays unduly in making an initial report, bases his opinion too much upon conjecture and implies that he knows more about the situation than he does, he may find them a little skeptical and inclined to deny liability or to transfer the patient to someone in whom they have confidence.

A great deal of misunderstanding and distrust can be obviated if the dermatologist disciplines himself properly and takes the responsibility of being a

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sort of self-appointed coordinator. He gets no extra pay for this but the value of the good will of all parties concerned may be great.

In the first place the dermatologist should examine himself and decide whether or not he will accept "industrial cases." If he does not wish to do so, he should steadfastly refuse all that are referred to him as such; and when he suspects an occupational element in the case of any patient already under his care, he should squarely face the possibility, promptly try to prove or disprove it and, if it is established that an "industrial" etiologic factor is present, refer the patient elsewhere. He will be paid at industrial rates for his services up to that point, even though he did not recognize the occupational element when he first undertook the care of the patient. But if he is willing to accept the responsibility for the management of industrial cases, he should do so with good grace and handle the human relationship aspects of the case as well as the purely dermatological.

THE DERMATOLOGIST-EMPLOYEE (PATIENT) RELATIONSHIP

If a patient is referred to the dermatologist by the insurance carrier or the employer for diagnosis and opinion as to whether or not a disease is of occupational origin, the dermatologist should limit his activities to diagnosis; if he initiates treatment without authorization, he has committed the insurance carrier for responsibility. Unless an emergency exists, he should explain to the patient that the present problem is one of diagnosis only, to determine whether and to what extent the dermatosis is due to the nature of the patient's work. In actual practice, however, palliative treatment is usually given while the diagnosis is being established, and if the dermatosis proves to be non-industrial, what to do and what not to do may be implied; if the dermatosis proves to be industrial, authorization to treat should be obtained by telephone, without delay.

The patient is often inclined to blame any dermatosis on his work and he may be militantly of that opinion until certain points are made clear to him. He should be reminded that his prime objective is to get well, regardless of the cause of his trouble; if it were erroneously decided that his trouble is due to his work, and if he were treated on that basis, the treatment probably would be ineffective. It may be pointed out to him that unbiased, perfectly objective efforts toward accurate diagnosis are therefore of primary interest to him. Attention should be called to the possibility that, should the disease be related to his work, the patient might have to change to an entirely different kind of work, and that therefore he might better hope that the dermal condition is not of industrial origin.

Most employees and many employers and physicians do not know that an employee is not paid compensation for the first week of idleness owing to an industrial illness, and that when he is paid he receives only 60 to 65 per cent of his average earnings, with a maximum usually of about $30 per week. When this is explained, it should be pointed out that this schedule is not something determined by the employer or the insurance carrier, but by the state laws. When the employee becomes aware of these facts, he is much more likely to take a relatively unbiased view and to cooperate toward attaining a true diagnosis. Should the diagnosis prove the dermatosis to be non-industrial, the patient should be advised that he is free to seek dermatologic care wherever he wishes, but at his own expense. If he is not willing to accept the "non-industrial" diagnosis, he should be advised to consult a dermatologist of his own choosing, who, if he considers the dermatosis to be of industrial origin, will so report to the insurance carrier. The carrier may then accept the case as industrial if it wishes. If it does not, the patient still has recourse to the Industrial Accident Commission.

It must be remembered by the dermatologist and pointed out to the patient, in case of controversy, that the insurance carrier is anxious not to deny liability in any case in which subsequently it might be proved that the disease is of industrial origin, for if a diagnosis of "non-industrial" is wrong and treatment given is therefore not effective, the cost of that treatment ultimately must be borne by the insurance carrier when at last it is established that the disease is, after all, related to the patient's work.

If the dermatosis is determined to be of industrial origin, care should be taken to explain the nature of the disease to the patient. Compensation law recognizes *liability without fault*, in contrast to common law which makes *fault* or *negligence* the basis of liability. It should be pointed out to the patient that, unless actual negligence on the part of his employer can be proved, it is "nobody's fault" that he has a disease of the skin. The disease can be explained as one of the natural hazards of his occupation; and it can be pointed out that insurance against such hazards is carried by his employer, and that the provisions of that insurance are regulated by state law which, while quite impersonal, was enacted for the protection of workingmen and women.

THE DERMATOLOGIST-EMPLOYER RELATIONSHIP

The relationship of the dermatologist and the employer varies with the size of the employer. In the case of a large industrial concern, such as an air-

craft plant or automobile manufacturer, the dermatologist deals with such facilities as the safety engineering department, the compensation insurance department and the employees' welfare department, whose managers are cognizant of the nature of the occupational hazards in that particular industry and are familiar with the mechanisms which have been established to handle compensation claims. The dermatologist can get a great deal of help from these facilities, particularly from the safety engineer, whose responsibility it is to be familiar with the nature of the industrial hazards in each department and devise ways and means of protection against them.

In the case of the medium-sized and small employers, it often falls to the dermatologist not only to explain the nature of the dermatosis in question, but to interpret the provisions of the workingmen's compensation laws; many employers know less about the latter than do their employees. Not infrequently an employer, mistakenly assuming that an employee's dermatosis is of occupational origin or that the insurance he has covers whatever the employee considers to be due to his work, will send the employee to a physician with the assurance that "the insurance will take care of it." Such ill-advised or mistakenly benign employers or their representatives may even call the physician's office and assure the secretary that the physician need not worry about the bill because the patient "is fully insured." The physician must immediately unscramble this erroneous assumption and proceed to indoctrinate all concerned without delay.

The dermatologist's chief relationship with the employer, large or small, centers around devising and enforcing protective measures or arranging changes in work suitable to the dermatologic and other limitations of the employee-patient. This can sometimes be accomplished through the patient, but time can be saved and misunderstandings obviated by direct communication with the employer or department head by telephone or letter. This is time consuming but effective. If the employer does not seem to be interested in devising and enforcing protective measures, it often proves stimulating to point out to him that his compensation insurance premium rate is in part determined by the experience reflected by the compensation claims of his employees, and that a high incidence of industrial dermatosis in his plant will inevitably result in higher premiums for him to pay. As a rule, however, the employer appreciates what the dermatologist is doing or attempting to do and is eager to cooperate, especially so if he realizes the costliness of man-hours lost through illness and of inefficiency due to discomfort.

THE DERMATOLOGIST-CARRIER RELATIONSHIP

Keeping the insurance carrier informed regarding the status of any case in which it has an interest is one of the best ways for a dermatologist to maintain good relations with the carrier. As soon as a dermatosis is suspected as being of industrial origin, the name of the insurance carrier should be learned from the patient's employer, and the carrier should be contacted by telephone for authorization to make such tests as may be necessary to establish a diagnosis; or, if the diagnosis has been established as industrial, authorization to treat it should be obtained. Nothing is more unfair to the carrier than to diagnose a dermatosis as industrial, treat it as such and render a report and a bill without having given notification at the outset. If the employer sends the patient to the dermatologist, or if another physician refers him, thinking the case to be on an occupational basis, and if such a basis is not apparent to the dermatologist, he should immediately contact the carrier for authorization to establish the diagnosis; this apprises the carrier of the trend of events and establishes financial responsibility for the dermatologist's services, regardless of the diagnosis.

When the diagnosis of industrial dermatosis is established, or even if there is still doubt after preliminary investigation, a detailed report should be made to the carrier, including information on the following points, in which the carrier is primarily interested: (1) the diagnosis; (2) the facts supporting the diagnosis; (3) if the diagnosis is not definitely established, (a) why is it in doubt, (b) when can it reasonably be expected to be established and (c) how will it be established; (4) is the patient disabled, and if so, (a) how long has he been disabled and (b) how much longer can he be expected to remain disabled; (5) will he be able to return to his old job and, if so, will he have to observe special precautions; if he cannot return to the old job, in what particulars must the new job differ from the old; (6) what kind of and how much treatment is anticipated.

If progress under treatment is not as anticipated, if the patient or his employer are not cooperating or if animosities are developing, the carrier should be so informed; when the patient who has been disabled is deemed ready to return to work, or if the patient who has not been disabled is instructed to stop work, the carrier should be notified promptly so that disability payments can be handled accordingly.

Insurance carriers usually retain safety engineers for consultation in cases where the employer has no such department of his own, and when difficulties are encountered in identifying the occupational contacts at fault, or devising protective methods, the carrier should be advised to supply that service.

710 Wilshire Boulevard.

Hemoglobin: Normal Values

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• *Hematologists are not in agreement as to the "normal" amount of hemoglobin in the blood, nor is there agreement as to what amount of hemoglobin can be considered "a hemoglobin value of 100 per cent." Different hospitals base reports of hemoglobin on different standards, which obviously can be misleading.*

By biometric study of the great mass of data on hemoglobin content that has become available as a result of the blood procurement program, it should be possible to determine what "normal" values are and to provide a basis for uniformity in reporting.

FEW WELL-INFORMED PHYSICIANS will deny that the practice of reporting hemoglobin in terms of percentage of any one of several widely divergent standards of normal is illogical and misleading. Some recognized hematologists have published reports advocating that as little as 13.8 gm. of hemoglobin per 100 cc. of blood be considered the level designated *100 per cent;* others would not use the term *100 per cent* for hemoglobin content less than 17.3 gm. per 100 cc.

In an effort to learn the present status of reporting hemoglobin values, questionnaires were mailed to 44 hospitals. The hospitals selected were large, teaching, university hospitals; large government general hospitals; large, outstanding hospitals in metropolitan areas; and three outstanding hospitals in smaller communities. All are known to have laboratories directed by thoroughly competent clinical pathologists.

Thirty-three replies were received. Twenty-four replies were from hospitals in California. Obviously the hospitals in California serve a homogeneous population, are all essentially at sea level and are within an essentially common range of climate. For the sake of uniformity only, the replies from hospitals in California are used as the basis of this report (although the replies from hospitals in other states would not, if included, materially affect the data).

Of the California hospitals from which replies were received, 14 report hemoglobin both in grams per 100 cubic centimeters of blood and in percentage. Ten report only in terms of grams of hemoglobin.

The letter of transmittal which was sent with the questionnaires contained this request:

"If you do not report in terms of per cent, I would appreciate it if you would state the number of grams of hemoglobin per 100 cc. of blood you would use as 100 per cent if you did report on a percentage basis."

Three of the reporting hospitals did not answer this question.

NORM FOR REPORTING IN PER CENT

The reported basis for 100 per cent in men ranged from 14.5 to 17.2 grams with a mean of 15.3 grams. For women the basis ranged from 13.0 to 17.2 grams with a mean of 14.8 grams. Fifteen hospitals reported using the same basis for 100 per cent for both sexes.

From the foregoing it is apparent that Mrs. X, whose blood contained 13 grams of hemoglobin per 100 cubic centimeters would be reported by hospital A (13.0 gm. = 100 per cent) as having hemoglobin value of 100 per cent and would be reported by hospital B (17.2 gm. = 100 per cent) as having only 76 per cent. Conversely, Mrs. Y, whose blood contained 17.2 grams of hemoglobin per 100 cubic centimeters would be reported by hospital B as having 100 per cent hemoglobin and would be reported by hospital A as having 132 per cent hemoglobin.

NORMAL RANGE

Men

The lower limit of "normal" range in men varied from 12.0 to 15.0 grams per 100 cubic centimeters and the upper limit from 15.0 to 18.0 grams per 100 cubic centimeters. One hospital considers 15.0 grams hemoglobin per 100 cubic centimeters to be the lower limit of "normal," while another considers it to be the upper limit of "normal."

The narrowest "normal" range reported by any hospital was 15.0 to 16.0 grams. The broadest was 12.0 to 17.2 grams.

Women

The lower limit of "normal" range in women varied from 12.0 to 14.5 grams and the upper limit from 14.5 to 17.2 grams. One hospital considers 14.5 grams per 100 cc. to be the lower limit of "normal," while another considers it to be the upper limit.

The narrowest "normal" range for women reported by any hospital was 13.9 to 14.5 grams and the broadest was 12.0 to 17.2 grams.

The director of laboratories of one outstanding hospital reported in part as follows: "Hemoglobinometer standardized by averaging hemoglobin determination in five healthy male adults." The fallacy of such a standard will become apparent later in this report.

The most valuable reply was received from the consulting hematologist to one of the largest general hospitals on the West Coast. He sent data based upon a frequency curve such as is shown on page 204 of Todd & Sanford's "Clinical Diagnosis by Laboratory Methods," 11th Ed., 1948. (Sanford used a curve of this type to determine the probable error in carefully conducted erythrocyte counts. Such a curve has many other uses and is discussed in its more general applications on pages 331 and 340 of "Biomathematics" by W. M. Feldman, M.D., published by Charles Green & Co., Ltd., London, 1923.)

On the basis of such a curve the hematologist gave the normal range of hemoglobin in men as 14.0 to 16.5 grams per 100 cc., and in women as 12.5 to 16 grams.

Any biometric approach to the determination of "normal" hemoglobin values should be based upon a very large number of determinations, inasmuch as the probable error varies inversely as the square root of the number of observations. For example, if the probable error were computed on the basis of 1,000 observations and the probability seemed to be undesirably great, it would be necessary to compute the probable error on 1,000 squared—or 1,000,000—observations in order to reduce the probable error by half.

This basic mathematical principle demonstrates the fallacy of trying to establish any standard on the basis of hemoglobin values in "five healthy male adults." Only by chance can such a standard have any real value.

From operations of the blood bank program the American National Red Cross now has or should have a mass of data from which authentic hemoglobin values could be computed, for the hemoglobin content of the blood of each prospective donor is determined, and only donors who are apparently in good health are accepted.

To make a biometric analysis of these data to determine mean hemoglobin values and normal limits of hemoglobin values in each sex would be a big job, but the potential value would seem to more than justify the expense.

By this means hemoglobin values for the United States as a whole could be obtained. Of probably greater importance, hemoglobin values for geographic areas differing in climate and altitude could be determined.

Once norms were established by such means and by data on so many cases, there could no longer be any excuse for the present wide divergence of opinions as to what constitutes a "normal" hemoglobin value.

525 South Flower Street.

Lumbar Sympathectomy by Electrocoagulation

Its Use in the Management of Certain Vascular and Visceral Disorders

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• *Although normally the sympathetic nerves aid vascular dilatation during effort, in certain diseases of the vascular system they have a reverse effect. Abolition of sympathetic vasoconstrictive impulses by sympathectomy is the most effective treatment in some chronic peripheral vascular conditions. The authors have used electrocoagulation for a number of years and found it quick, effective and more likely to prevent regeneration of the affected nerves.*

Improvement was obtained by sympathectomy in arteriosclerotic vascular insufficiency, thromboangiitis obliterans, Raynaud's disease, reflex sympathetic dystrophy following thrombophlebitis or trauma, scleroderma, spinal sympathetic dystrophy and acquired megacolon. A case of causalgia was aggravated by the operation.

Abstention from the use of tobacco appears to be sufficient for control of symptoms in many cases.

Since vasospasm is manifested in many conditions long before a thrombotic catastrophe occurs, not only relief of symptoms but prevention of irreversible changes may be achieved by early operation.

FOR MORE THAN a quarter of a century lumbar sympathectomy has been used in the treatment of various disorders of the lower part of the body. Unfortunately, the operation has been ill-advised in some cases and the results disappointing; consequently there has grown up a reluctance to use it even in circumstances in which it is most effective. While the authors' experiences have been encouraging, it is recognized that they are relatively limited.

The operation as originally described by Royle,[13] who recommended it in treatment of spastic paraplegia, has not been changed much in essentials, but the use of it in spastic paraplegia has been abandoned. It appeared for a time that Hirschsprung's disease[1, 4, 9] could be relieved by sympathectomy, but enthusiasm over the immediate effects from the operation was short-lived. The congenital absence of nervous structures of the lower segment of the bowel in this disease is now recognized, and resection of the segment appears to offer a more favorable solution to the problem.[16, 18] The use of lumbar sympathectomy in multiple sclerosis is another short paragraph in the record of unsuccessful therapeutic measures.[6]

In the light of a better understanding of physiologic and pathologic phases of disease, the indications for sympathectomy become more clear and better results are attained. Thus, diseases with vasospasm and vascular insufficiency respond most dramatically to the operation. Likewise, the syndrome of acquired megacolon with cord bladder often responds favorably, but this condition can almost always be controlled by more conservative measures.

Under normal conditions, sympathetic impulses tend to aid vascular dilatation in the striated and cardiac muscles involved in effort. On the other hand, certain diseases of the vascular system are usually accompanied by altered or even reversed sympathetic action.[11] Therefore, sympathetic impulses generated by exercise tend in some abnormal states to cause serious interference with the supply of blood through vasospasm. In such ischemic states, degenerative changes take place and the tendency to thrombosis and gangrene is greatly increased. Arteriosclerosis, thromboangiitis obliterans, Raynaud's disease and certain chronic inflammatory disorders of the lower extremities[15, 19] are notable examples of reversed sympathetic activity. Muscular pain on effort, particularly below the knees, is usually the initial complaint. Thrombosis and gangrene are likely to occur later. Vasodilatative drugs are well known to effect some symptomatic relief, but this at best is only temporary, since the maintenance of sufficient drug concentration in the system to inhibit vasoconstrictive influences continuously is highly impractical. Further, the action of drugs is not sufficiently selective to affect only the region involved by disease, and generalized vasodilatation may even decrease the supply of blood to the diseased area.

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Although the injection of procaine hydrochloride into the lumbar sympathetic chain is commonly recommended, the drug can be expected only to reach the general vicinity of the chain, the hope being that it will pool about the chain. Quite frequently this occurs but the effects are only of short duration. While in some acute vascular lesions the procedure probably has therapeutic merit, in chronic conditions its therapeutic value is questionable and it should not be considered; it only prolongs the condition and permits further irreversible changes to take place. It is much more desirable to abolish permanently the sympathetic vasoconstrictor element. This can be accomplished effectively only by sympathectomy, after which, in properly selected cases, previously progressive symptoms usually subside and the danger of thrombosis is reduced.

The sympathetic efferent pathways to the peripheral vascular system are composed of three principal sets of neurons. The primary neurons arise in the diencephalon (posterior hypothalamic nucleus) and extend to the cells in the anterolateral column of the spinal cord. Neurons of the second order (preganglionic fibers) arise in the anterolateral gray columns of the cord and connect with the sympathetic chain through the white rami communicantes. The neurons of the third order (postganglionic fibers) arise in the sympathetic ganglia and extend to vascular and visceral structures of the somatic area, in addition to corresponding structures in the splanchnic areas. The nerve supply reaches the somatic area through the gray rami which connect each spinal nerve with the sympathetic chain. Further, these fibers from the sympathetic chain, after joining the spinal nerves, are arranged in a fairly distinct segmental order. Wide overlapping, considered as characteristic of the sympathetic nervous system, occurs mainly in the preganglionic connections above the postganglionic outflow from the sympathetic chain to the segmental nerves, and possibly to a yet undetermined degree in the spinal tract.

Thus the postganglionic supply in the lower extremities below the knees is mainly from the fourth and fifth lumbar and the first, second, and possibly the third sacral spinal levels of the sympathetic chain, and reaches the vascular and visceral structures through the respective roots mentioned. The lowest preganglionic connection of the sympathetic chain with the cord is the farthest caudal white ramus which is usually at the level of the second, but in some cases of the third lumbar spinal root. Therefore it is apparent that section of the sympathetic chain at the fourth lumbar level effects adequate sympathetic denervation of the visceral structures below that level and of the lower extremities below the knees.

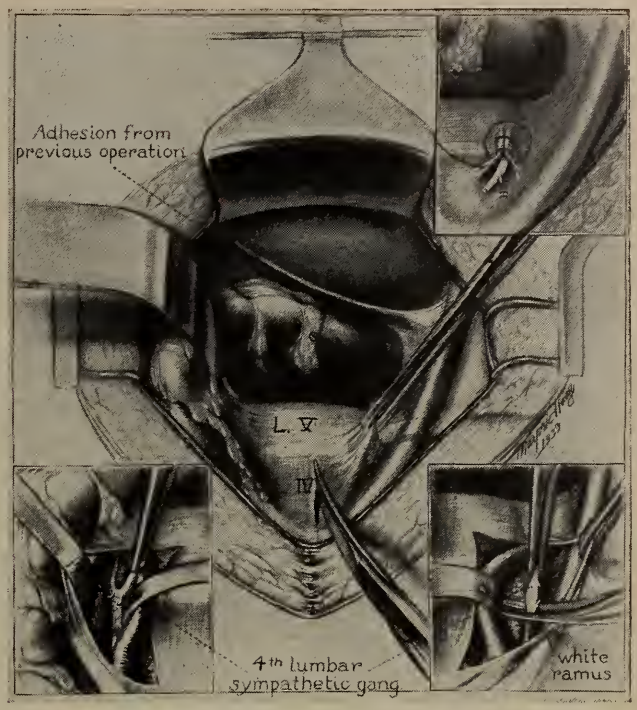

Figure 1.—The lumbar sympathetic chain is easily accessible through a midline transperitoneal approach. The ganglia can be excised or destroyed by electrocoagulation. To prevent regeneration, one end of the chain may be left out of the peritoneal cavity and the other within. There is no evidence, however, that regeneration occurs if this precaution is not taken.

A number of techniques have been recommended for lumbar sympathectomy.[2, 5, 8, 10, 14, 17] The variations are primarily in the approach, some surgeons preferring the transperitoneal (Figure 1) and others the retroperitoneal (Figure 2). From a practical point of view there appears to be little difference between the two if sympathectomy is accomplished, since morbidity and mortality are the same. Most observers agree, however, as to essentials in resection of any stated amount of the lumbar sympathetic chain. In most cases the operation involves the second, third, and fourth lumbar ganglia. When sympathectomy at a higher level is desired, for diseases above the knee, the approach must necessarily be modified.

For years the authors have used an electrocoagulation technique which seems superior to the standard resection of the sympathetic chain, since it effectively and more quickly accomplishes the purpose. After electrocoagulation any tendency to regeneration of the nerve, which appears doubtful, is barred by the greater scar formation following this operation. The lasting effectiveness of the method has been demonstrated in tests of electrical resistance and sweating (Figure 3) made as long as five years after electrocoagulation of the sympathetic chain at the fourth lumbar level.

The material for this review consists of 50 cases in which vascular and visceral disorders were treated

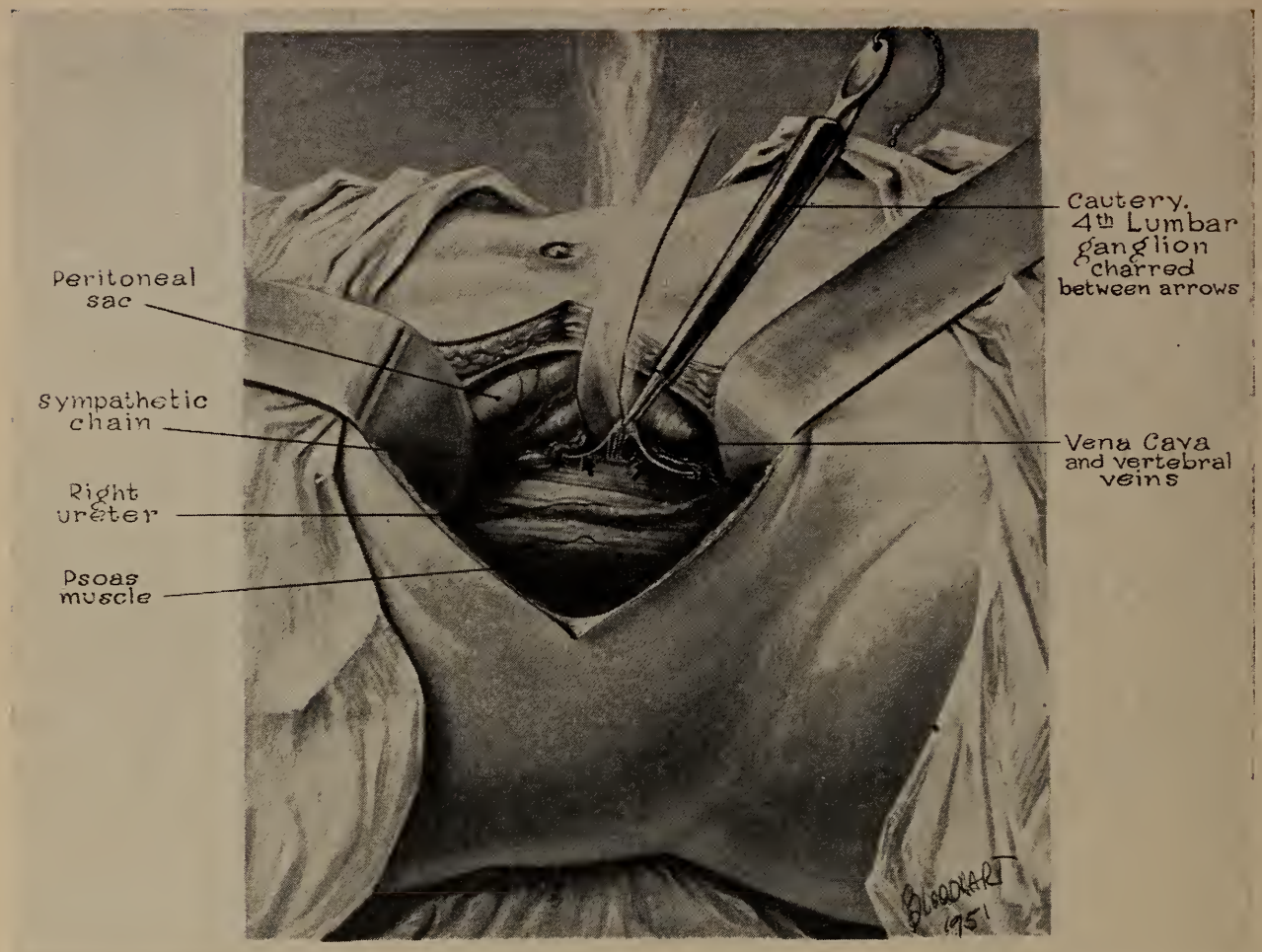

Figure 2.—The retroperitoneal approach to the lumbar sympathetic chain is easily accomplished through a transverse skin incision and a muscle splitting type of operation. The ureter generally is not seen, since it comes away with the peritoneum. In the case portrayed, however, it was adherent to the psoas muscle and could have been injured if not observed. The electrocoagulation technique is illustrated.

by lumbar sympathectomy. These cases represent, for the most part, the conditions in which, in the authors' judgment, the operation is indicated.

Arteriosclerotic vascular insufficiency: Cases with this diagnosis constituted the largest group—21. Eighteen patients were men and three were women. Their ages ranged from 51 to 80 years and the duration of symptoms from three weeks to ten years. Occupation did not appear to be a factor in the development of symptoms. Two patients had never used tobacco. In all cases there was constant pain in the feet and calves on walking—the principal cause of disability. Coldness of the extremities was also a common complaint. On examination it was usually observed that peripheral circulation was retarded, as was capillary filling in the toes, and that the feet were cyanotic when dependent and blanched when elevated.

In four patients who had only unilateral symptoms the operation was limited to the affected side; in the other 17 it was bilateral. The transperitoneal approach was used in only one case, the retro-

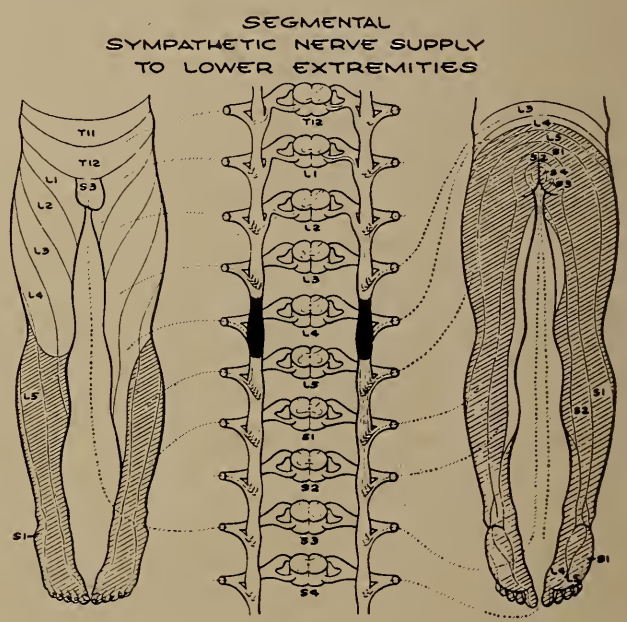

Figure 3.—Peripherovascular studies disclosed no change in the effect of sympathectomy by the electrocoagulation technique as long as five years after operation.

peritoneal in 20. The extent of the operation varied over the years. The first four lumbar ganglia were destroyed in one patient; the second and third in two; the second, third and fourth in seven; the third and fourth in five; and the fourth in six. Destruction of the fourth ganglion alone had results quite as good as the more extensive procedures, and the authors now believe that more extensive operation was unnecessary in the other cases, since there were no symptoms above the knees in any of the patients.

Regardless of the extent of sympathectomy, there was complete relief from symptoms in 16 cases and great improvement in four. In the remaining case the extent of relief could not be properly evaluated because of narcotic addiction, but the patient admitted some improvement which was evidenced by increased walking ability.

In two patients who had had symptoms of long duration there was sufficient improvement so that they could return to their occupations, although they had some pain on unusual effort.

In four patients impending gangrene necessitated amputation of one or two gangrenous toes after sympathectomy, but symptoms were relieved. In a fifth patient with extensive pregangrenous manifestations the left foot was amputated; healing was satisfactory but thereafter the patient had phantom foot pain.

In two cases occlusion of a major vessel of one leg had been evidenced some time after onset of bilateral vascular insufficiency and had increased the disability in the affected leg, although gangrene had not developed. In both cases, after bilateral sympathectomy, there was pronounced improvement in the occluded leg and relief of pain in the other leg.

Thromboangiitis obliterans: Sympathectomy was done unilaterally on two men and bilaterally on eight, in all cases by the retroperitoneal approach. The patients were aged 21 to 50 years, the majority being in the forties. Symptoms had been present from six months to 15 years. In five cases the second, third and fourth lumbar ganglia were destroyed; in three, the third and fourth; in two, the fourth only. As the symptoms in all cases were confined to the feet and the muscles of the calf, relief was as good in the cases in which operation was confined to the fourth lumbar ganglion as it was in those in which the more extensive operations were done.

Thrombosis and gangrene of one or more toes had occurred in three patients before operation, and in two patients in whom gangrene had been impending before operation it developed a few days after operation. In all these cases the gangrenous toes were removed after sympathectomy and the wounds healed satisfactorily.

The patients were observed a year to ten years after operation. Five who had previously used tobacco and had continued to use it were free of symptoms. Of the other five who were relieved sufficiently to return to their occupations, one had never used tobacco and two others had discontinued the use of it before operation with some relief, they thought, in the intensity of symptoms. One patient who had never discontinued the use of tobacco, and who had been treated by destruction of the fourth lumbar ganglion only, was still free of symptoms in the lower extremities ten years later but had signs of disease in the upper extremities.

Raynaud's disease: Three men and four women, aged 24 to 41 years, had had symptoms for one to five years. Gangrene had necessitated amputation of the affected toes in two patients. The transperitoneal approach was used in two patients, the retroperitoneal approach in five; in all cases sympathectomy was bilateral. The fourth lumbar ganglion was destroyed in three cases; the second, third and fourth in four. Equal relief of symptoms was obtained in all cases.

Thrombophlebitis: Reflex sympathetic dystrophy followed acute thrombophlebitis in one patient. The extremities were cold, clammy and cyanotic and pain occurred in them on exertion. The second, third, and fourth ganglia were destroyed bilaterally. The patient was still free of symptoms two years later when treated for subdural hematoma.

Scleroderma: No apparent effect was obtained by destruction of the second, third and fourth lumbar ganglia on one side in an effort to relieve severe generalized scleroderma.

Post-traumatic reflex sympathetic dystrophy: In three patients the condition, although confined to the injured leg, was sufficiently severe to justify sympathectomy. In a girl the injury had affected the major vessels and caused gangrene of the foot. Preservation of a good stump below the knee might not have been possible without sympathectomy. In another girl symptoms came on after an injury in which the muscles of the leg were stretched; after sympathectomy at the fourth lumbar level a year later, symptoms subsided. In the third case, after a bruising injury, multiple fractures and lacerations involving the peroneal nerve were repaired but the extremity remained cold and clammy and pain persisted. A year later prompt relief was obtained by sympathectomy at the fourth lumbar level.

Sympathectomy was considered for a 16-year-old boy in whom, after infection of a laceration about the sciatic nerve, there was sensory and motor impairment with coldness, cyanosis and pain below the knee. The pain and signs of vascular insufficiency

promptly subsided after neurolysis, and a year later the patient had made a good recovery.

Causalgia: A 53-year-old woman received a minor bruise over the peroneal nerve. Pain developed almost immediately; it persisted and was not relieved by neurolysis. The limb was hot, dry and hypersensitive; it appeared hyperemic, the skin thin and shiny and the nails showing incipient atrophy. After sympathectomy at the second, third and fourth lumbar levels the condition was not relieved but aggravated. The experiences of other surgeons with sympathectomy for causalgia likewise have not been encouraging.[12]

Spinal sympathetic dystrophy: A 47-year-old man had had coldness and clamminess in the extremities and cramps in the legs on walking. The condition was static and the cause was obscure. Increased reflexes in the lower extremities and bilateral signs of disease of the pyramidal tract were the only signs observed in extensive investigation. The feet were cold and clammy and were cyanotic when dependent. Pronounced spasm of the peripheral vessels was observed. After sympathectomy at the fourth lumbar level symptoms were relieved but no changes were noted in the signs of disorder of the pyramidal tract.

Acquired megacolon: Four women and one man, aged 37 to 48 years, had had symptoms for five to 15 years with increasing resistance to medical management; mild symptoms of cord bladder were present in all cases. One patient had paralysis agitans and another had congenital atresia of the spinal dura mater[3] at the fourth lumbar level. In all cases sympathectomy was done by the abdominal approach; as no cause of the disorder was apparent, the second, third and fourth lumbar ganglia were destroyed by electrocoagulation. Great improvement followed in all cases, with obstipation eliminated and constipation much more easily managed.

Selection of patients for operation in the series here reported was conservative; only when symptoms were such as might reasonably be expected to yield to such treatment was operation carried out. It seems likely that many patients who were advised to discontinue the use of tobacco did so and were relieved of symptoms sufficiently so that they did not come under the authors' observation, particularly patients with arteriosclerosis and thromboangiitis obliterans. Since the aggravating influence of nicotine on vasospastic disorders is well known, the use of tobacco in these conditions should be discouraged.

The most striking response to sympathectomy was in the disorders of peripheral circulation. Contrary to what might have been expected, vasospasm appears to be the principal cause of symptoms in arteriosclerotic vascular deficiency. It should be emphasized that in this condition symptoms are usually present long before thrombotic catastrophes occur, and early operation may forestall irreversible vascular changes. Not only are symptoms relieved by sympathectomy, but the progress of the disease is retarded and the hazard of infarction reduced. These general considerations likewise apply to other vascular disorders mentioned in this review.

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The Practice of Allergy

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• *Allergic disease has no one common denominator but may be due to various causes. Tests with allergenic substances are important but not infallible, and should not be the sole criteria of clinical sensitivity. They should not be employed indiscriminately. Much progress in utilizing all forms of modern medical treatment has been made. Finally, in treating patients with allergic disease, kindness and consideration remain the attributes that distinguish good allergists.*

IN THE PROGRESS of medicine, our age surpasses the span of many centuries. More has happened in the space of a generation than in all the years that have gone before. We have learned about stress, and the complicated relation of endocrines to the body and to each other. We have discovered the part minerals play in our well-being. The philosophy of Freud has brought new force in our time and a new concept of psychodynamics and psychotherapy. There is the discovery of antibiotics which may ultimately erase from memory many of the serious illnesses, some of which previously ended life.

The use of vaccines, serums, antitoxins and other similar weapons has made the little white hearse drawn by horses with white plumes, so common a sight on our streets in former days, a thing of the past. Today we dimly recall the colored isolation cards that were posted on front doors. We vaguely remember rules of isolation prescribed by local health boards in the days of our childhood. The span of life has increased as childhood mortality and adult morbidity have decreased. No longer do we surrender blood dyscrasias to the grim reaper without strenuous fight and often victory. Blood transfusions and surgical procedures have attained new perfection. Our undergraduate and postgraduate training, fortified with an exhaustive and integrated curriculum, has resulted in a corps of highly enlightened and educationally endowed physicians; the knowledge gained and traversed in laboratory, lecture and clinical assignments has given us men of vision, skill and quality in all branches of medical science and art. New specialties and specialists have developed — otolaryngologists, cardiologists, chest physicians, physiotherapists, radiologists, hematologists and many others. Not among the least of specialties that have evolved from the newer knowledge of disease processes is that dealing with allergy.

Men who cherish the history, philosophy and literature of this new specialty have surmised that when Lucretius observed that "One man's meat might be another man's poison," he was alluding to the allergenic reaction to food. Similarly, hopeful latter day medical historians have pointed out that when Hippocrates, in his sixty-fourth aphorism, spoke of headaches due to ingestion of milk, it is probable he touched upon an allergic reaction well known today.

Allergy is one of the youngest of our juvenescent medical specialties. The very term *allergy* did not appear in our medical vocabulary until after the beginning of this century (1906), and there is still much about the fundamentals of allergy we do not know. For example, we talk freely about skin-sensitizing antibodies and we can demonstrate them, yet we do not know how they are produced. We speak glibly about the allergic reaction; we know there is a release of histamine, but what other substances are released as a result of the antigen-antibody reaction we do not know. The pathologic roots and branches of allergy are neither well understood nor well described, and despite intensive study of so-called bacterial allergy, it still remains a confused, highly controversial and debatable subject among allergists.

THE PSYCHOSOMATIC FACTOR IN ALLERGY

It will be recalled that, in the first edition of Osler's *Principles and Practice of Medicine* asthma was defined simply and solely as a "neurotic affliction." In subsequent editions, the term "neurotic" was qualified and modified until, in the twelfth edition, 1935, the word "neurotic" was deleted entirely. However, the pendulum apparently has swung back, and today, our psychiatric colleagues are using the term *psychosomatic asthma* to designate the psychosomatic cause of asthma, as opposed to the allergic or infectious origin which most allergists had begun to feel at last was firmly established.

The term *psychosomatic* has at least two connotations. To physicians who think only in terms of organic disease, the adjective indicates the effect of

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mind on organic disease. To these physicians it is conceivable and readily admitted that psychologic influences may aggravate, precipitate or maintain the symptoms of an already existing organic disease. On the other hand, psychiatrists are inclined to use the term *psychosomatic* to indicate a disease or illness which originates *de novo* as a result of personality problems, emotional influences or psychological factors.

Without entering into profound controversial argumentation, I believe most of us can agree that, in every case of asthma, there exists an emotional component that varies in degree from practically negligible to paramount. It may be that emotional impulses from the higher centers of the brain, transmitted by way of autonomic nervous system, increase the permeability of blood vessels so that allergens previously held back penetrate vascular walls; or that, by increasing the blood supply to a susceptible tissue or organ, they indirectly may aid the union of a circulating antigen with a sessile antibody. If this speculation is accepted, then there might be further agreement that psychotherapy does not alter the fundamental allergic background, but instead allows an allergic individual to come into contact with noxious allergens with impunity.

As allergists, we should be chary of accepting any or only one point of view as to the cause of asthma. There is no unitarian hypothesis that covers our present knowledge of the disease or, for that matter, of most of allergy in general.

As an illustration of the pitfall in the path of physicians who adopt but one point of view as to the cause of asthma, there is the reported case of an actress who always had an asthmatic attack before her appearance on the stage. Stage fright was assumed to be the unbalancing factor until it was found that she was sensitive to one of the ingredients of her make-up and that the asthma was purely the result of allergic reaction.[1] On the other hand, Moos[2] reported the case of a patient who regularly had attacks of asthma in the evening when supper was being prepared. The kitchen smells were believed to be the cause, and all doors were kept carefully closed. It was revealed, however, on analysis, that it was a conversation at supper-time which had extremely excited the patient that caused the time fixation.

Therefore, in this matter of organic versus psychosomatic influence in allergic disease it would be well to emulate Walter Savage, whose wish it was to walk always with Epicurus on the right and Epictetus on the left. Allergists can well afford to be middle-of-the-roaders with regard to etiology in allergic disease so long as they take care not to neglect either the allergic or the neuropsychiatric aspect.

ALLERGY TESTS

In January 1950 a question on tests in allergic states was posed to the members of the International Correspondence Society of Allergists.[3] The question was as follows: "How many and what type of skin tests do you consider essential in the survey of a case of bronchial asthma?" The question was answered by allergists from every section of the country, and, as might be expected, every kind of answer was received. There were some physicians who replied that upon some patients they do no tests at all. There were others who admitted they do as many as 400 tests, and, furthermore, asserted that not only should an asthmatic person be tested for sensitivity to environmental allergens, molds, pollen and foods that he eats, but also as to substances that he might eat as a substitute for food.

Routine skin testing of a patient for sensitivity to a large number of substances that he does not come in contact with and to foods that he does not eat has made the the public suspicious of the tests and has caused them to wonder how necessary or valuable they really are. We may as well be honest with ourselves and face the fact that skin tests occasionally may be done not because they are necessary in determining the cause of allergic disease but because they entail additional visits to an avaricious physician. Fortunately the number of dishonest allergists, like the number of dishonest physicians in general, is low. But we do not want any. To protect a trusting public, to answer skeptics with probity and to preserve the prestige of our specialty, we have the means by which the many honest have always prevailed over scoundrels—coventry.

Almost as disturbing to a number of us is the allergist who prescribes extremely restricted diets on the basis of food skin tests alone; or who advises patients to do away with the padding under their carpets or throw out their upholstered furniture, again solely on the basis of results of skin tests without regard to clinical history or trial. Skin tests should be zealously evaluated clinically before a patient is given advice that will disturb his manner of living, change his environment or otherwise discommode him or put him to additional expense.

In a recent editorial in the *Journal of Allergy*, the editor discussed the additional problem of the standardization of allergenic extracts. He pointed out that "the patient, under treatment by one allergist, who moves to a new locality and consults a different physician, is apt to find that he is essentially starting treatment again at the beginning. Even the repetition of skin tests, using another make of extract, often leads to divergent results which confuse the patient and lessens his confidence in the whole practice of allergy." Indeed, this very thing may happen

when a patient consults two allergists in the same city where the two allergists use extracts prepared by two different laboratories. That we should rationalize our skin testing is quite evident. A uniformity of preparation and standardization is mandatory if we are to raise the level of allergic diagnosis and treatment.

ALLERGY AN INTEGRAL PART OF INTERNAL MEDICINE

It is refreshing to note the increasing number of allergists who have not forgotten that they are internists as well as allergists. Such physicians studiously follow the recent advances in medicine. In every case of allergic disease, they explore all avenues of differential diagnosis, and with emphasis of their action on physiological mechanisms, they willingly adopt and readily use the most recent agents, biological agents and drugs and therapy.

In infantile eczema, when the skin has become secondarily infected because of scratching, and antibiotics are indicated, a well rounded allergist uses them intensively. Where an allergic condition is initiated or aggravated by sinusitis, and the bacterial organisms recovered from the sinuses and sputum are sensitive to penicillin, he prescribes it intramuscularly or by aerosol in proper concentration. When the sinus organisms are resistant to penicillin, he either uses the newer antibiotics, such as magnamycin and erythromycin, or he washes the sinuses and treats them until they are clear, or refers the patient to a competent colleague for similar therapy. In dealing with asthmatic patients who are too weak to cough up the tenacious sputum, he may resort to bronchoscopy. He is alert in recognizing, diagnosing, and treating the complications of asthma. When it accompanies the menopause, or is increased at that period, he employs estrogenic therapy. Adrenocorticotropic hormones and cortisone are used, but of course with discrimination. In other words, allergists with a high regard for the specialty of their choice recognize it as an integral part of internal medicine. With invincible conviction that the future of medicine ultimately will discover a more complete answer to the riddle of bronchial asthma, the alert and faithful allergist employs every means at his present command to unravel the actual cause or causes, relieve the distressing symptoms and hinder the progress of the allergic state.

THE QUALITY OF THE ALLERGIST

In the practice of allergy today it is still necessary for allergists to exercise qualities of the heart, as well as the mind, in the treatment of patients. One cannot treat an allergic person completely by just taking a history, performing a physical examination, advising laboratory and sensitivity tests, providing immunization and restriction of diet or prescribing drugs. Something more is necessary. Some say that to treat a patient completely the physician must be interested in the patient as a person. Others insist he must have an empathetic attitude toward the suffering or discomfort the patient is experiencing. Perhaps the old Arabic proverb, "No man is a good physician who has never been sick" contains more than an element of truth.

It seems to me that all might be contained within the word *kindness*, which all physicians should keep uppermost in mind when they treat patients. This is especially true of allergists, for they are dealing with hypersensitive patients at all times. This kindness should manifest itself first, perhaps, in the matter of fees, subject to which medicine, in its best estate, has lately been devoting much attention. Our fees should be fair and equitable for the services we render. They should not be so low as to ignore the cost of office expense, or neglect proper acknowledgment for the years of training necessary to become specialists. On the other hand, they should not be so high as to bring distrust to our patients, cause them to be hostile, or lead them to believe they are being exploited. In the practice of allergy today we cannot afford to be indifferent to the enormous economic changes that have taken place in the last quarter of a century. By keeping fees equitable, we shall be strengthening the medical profession and at the same time dedicating ourselves to the social progress of the community.

When a patient's burden grows heavy and the way hard, as good physicians we can do no less than attempt as best we can to make the burden lighter and the path easier trod. Hippocrates, in one of his precepts, said, "Some patients, though conscious that their condition is perilous, recover their health simply through their contentment with the goodness of the physician."

We must guard, however, against promising more than we can fulfill, and in allergy that requires discipline in thought and speech. Kindness to our patients demands honesty, consideration, tact, sincerity, uprightness, the quality of loyalty and faithfulness. It implies conformity with fact and agreement with reality.

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CASE REPORTS

- **Combined Auricular Septal Defect and Thrombosis of the Major Pulmonary Artery**
- **Spontaneous Perforation of the Esophagus**
- **Cat Scratch Disease on the San Francisco Peninsula**
- **Cat Scratch Disease in the Los Angeles Area**

Combined Auricular Septal Defect and Thrombosis of the Major Pulmonary Artery

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IN A RECENT clinicopathological conference[3] reported in the *New England Journal of Medicine* it was stated that there have been only about five cases of combined auricular septal defect and major pulmonary artery thrombosis reported in the literature. Following is a report of a case in which those conditions coexisted.

REPORT OF A CASE

A 30-year-old married Caucasian woman had always been able to engage in strenuous athletic activities (worked as a swimming instructor) without any symptoms until the age of 21, when she first noticed exertional dyspnea. She was then told that she had "a murmur." Dyspnea gradually increased, and when the patient was 24 years of age cyanosis and edema at the ankles were also noted. Digitalis was given and a diet low in salt prescribed, but dyspnea gradually increased. At the age of 26 the patient had one episode of hemoptysis. From about that time onward, exertional syncope occurred occasionally and paresthesia of the extremities was frequently noticed, but there was no pulmonary edema.

The patient was hospitalized 17 days during July 1950 for study. The temperature was 98 degrees F., the pulse rate 72, respirations 28 per minute. The blood pressure in the right arm was 115 mm. of mercury systolic and 70 mm. diastolic; in the left, 118 mm. and 70 mm., respectively. The patient was very thin, cyanotic and in moderate respiratory distress, with orthopnea developing even after the exertion of talking. The skin was generally pale, but cyanosis was present about the nose and mouth and under the nails. There was no jaundice and no eruptions or petechiae. Moderate clubbing of the fingers and toes was noted. Ocular movements, pupillary reactions, and visual fields were normal. There were no hemorrhages or exudate in the retinae but the retinal veins were full and bluish in color. The disc margins were well outlined. In the throat there was cyanosis of the buccal mucosa. There was no obvious distention of the veins in the neck but the carotid pulsations were active.

"Fullness" in the right superior-anterior portion of the thorax and a slight inspiratory lag on the left side were noted. The lungs were resonant to percussion, and normal breath sounds were present on auscultation. The precordium was hyperactive. A palpable diastolic thrill was present in the third left interspace. The cardiac rhythm was regular. The heart was considerably enlarged to the right and the pulmonary conus was prominent. The tones were partially obscured by a rather pronounced rumbling, diastolic murmur in the second and third left interspaces. It was transmitted over the entire precordium and was audible posteriorly in the interscapular area just to the left of the spine. A systolic murmur of lesser intensity was heard over the apex. P-2 was accentuated over A-2. No friction rubs were present. The edge of the liver, firm but not tender and not pulsating, was palpable 2 cm. below the right costal margin. There was no dependent edema. The dorsalis pedis pulses were palpable and of good volume.

Upon neurological examination it was noted that the cranial nerves were intact and that motor and sensory functions were normal. The sensorium was clear.

The patient was given 0.1 mg. of digitoxin daily. Thiomerin® (mercaptomerin sodium) was given intramuscularly as needed to control edema. On the tenth hospital day cardiac catheterization was carried out after prophylactic administration of penicillin and procaine amide hydrochloride. Throughout the 24-hour period following catheterization, the patient had very low blood pressure, as low as 50 mm. of mercury systolic and 30 mm. diastolic for

From the Glendale Sanitarium and Hospital.

brief periods. However, there was good response to symptomatic treatment and the patient was discharged with prescription of digitoxin and occasional injections of Thiomerin.

Laboratory Data

First hospital day. Venous pressure: 165 mm. of blood, right antecubital space (No. 20 needle). Circulation time: 16 seconds, arm to tongue (Decholin). Vital capacity: 3.0 liters. Electrocardiogram: Auricular rate 81; ventricular rate, 81; P-R interval, 0.16 seconds; rhythm, sinus arrythmia; P wave in lead V_2 inverted; QRS complexes, pronounced right axis deviation, increased amplitude throughout, normal duration; T wave in leads 3 and V_5 inverted; ST segment in leads 2, 3, and V_5 depressed; ST segment in leads V_1 and V_3 elevated. Interpretation of electrocardiogram: Right axis deviation, right ventricular "strain" and/or digitalis effect.

The urine was yellow and clear with specific gravity 1.014 and pH 6.0. There was a trace of sugar. In microscopic examination occasional leukocytes were noted, but no erythrocytes or casts. Results of a phenolsulfonphthalein test were:

Minutes	Volume	Per Cent
30	160	32
90	220	27
120	50	8
Total		67

Second day. The erythrocyte content of the blood was 7.01 million per cu. mm. and the hemoglobin content 19.6 gm. per 100 cc. Leukocytes numbered 8.150—polymorphonucleocytes 64 per cent, lymphocytes 27 per cent, and monocytes 9 per cent. Mean corpuscular volume, hemoglobin and hemoglobin concentration were within normal limits, and the erythrocyte sedimentation rate (not corrected for the increased number of cells) was 1 mm. in one hour. The icterus index was 6 units. Content of nonprotein nitrogen was 39 mg. per 100 cc., of sugar 76 mg. per 100 cc., and of carbon dioxide 23.7 mEq. The result of a test for blood in the stool was negative.

Third day. In an orthocardiogram the heart was noted to be greatly enlarged in the right ventricular area. The left auricle did not appear to be enlarged. The view of the left ventricle was obscured by the shadow of the spine and it was felt that this position might be owing to enlargement of the left ventricle or to considerable displacement caused by the abnormal size of the right ventricle. The pulmonary conus, pulmonary arterial segment and hilar vessels were huge. The peripheral pulmonary vessels did not appear to be enlarged. The aorta was small and appeared to be on the left. There was some fibrosis in the peripheral portion of the left second interspace. Examined fluoroscopically, the pulmonary conus and hilar vessels were observed to pulsate more than normally.

Tenth day. Results of cardiac catheterization were:

Catheter Position	Oxygen Volumes Per Cent	Pressure in mm. of Mercury—Systolic	Pressure in mm. of Mercury—Diastolic
Superior vena cava	10.97	....	....
Right auricle	11.83	14	6
Right ventricle (inflow tract)	12.15	37	23
Right ventricle (outflow tract)	11.50	40	10
Pulmonary artery (position 2)	11.89	27	16
Pulmonary artery (position 3)	10.91	....	....
Capacity	25.09	....	....
Femoral artery	12.58	56	38
Saturation (femoral artery)	50.10	....	....
Pulmonary vein (assumed as 95 per cent saturation)	24.09	....	....

	Flow	Index†
*Systemic flow $= \frac{143}{12.58 - 11.40} =$	121	78
*Pulmonary flow $= \frac{143}{24.09 - 11.40} =$	11.26	7.31

It was felt at the time of catheterization that there was a large right-to-left shunt through an auricular defect, although the possibility of a ventricular septal defect could not be ruled out.

The clinical impression was: Congenital heart disease, cyanotic type, with probable auricular septal defect, with a right-to-left shunt, accompanied by pulmonary hypertension.

About a year later the patient was seen at home because of an upper respiratory tract infection, for which penicillin was given. A few months later she was again observed at home on complaint of "pleuritic" pain. The blood pressure was 110 mm. of mercury systolic and 80 mm. diastolic. The thoracic pain became more severe in the next week; then pronounced dyspnea and acute pulmonary edema developed suddenly and the patient died.

Autopsy

Upon postmortem examination, pronounced cyanosis of the lips, face, upper trunk and nail beds was noted and there was considerable livor of the dependent portions of the body and moderate clubbing of the fingers and toes. The heart weighed 520 gm. (normal 250-300 gm.) and appeared enlarged in all dimensions. The right side of the heart was greatly dilated and hypertrophied; the right ventricle was 18 cm. in circumference and the thickness 9 mm. The

*The flow measurements are calculated by dividing the oxygen consumption of 143 cc. per minute by the arteriovenous differences. Thus: The arteriovenous difference for systemic flow is 12.58 (femoral artery) minus 11.40 (mean content between superior vena cava and right auricle). For pulmonary flow it is: 24.09 (pulmonary vein) minus 11.40 (mean auricular content).

†The cardiac index is the liters of blood flow per square meter of body surface area. It is calculated by dividing the usual flow measurement by the surface area of the patient (in the present case, 1.54 square meters).

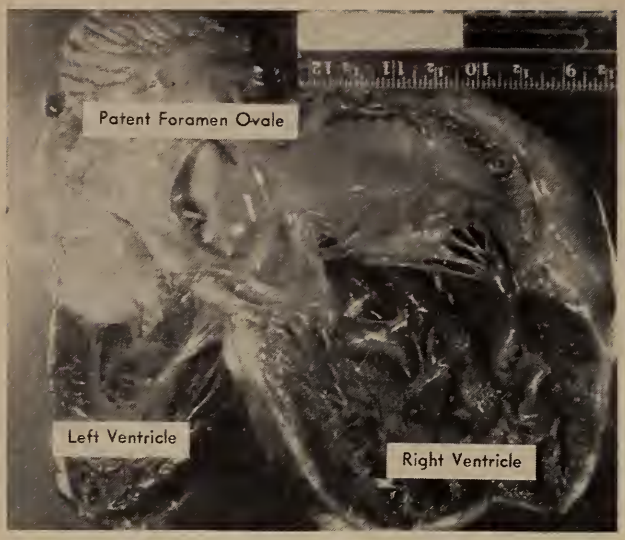

Figure 1.—Patent foramen ovale of interatrial septum.

left side of the heart was also enlarged, but this was apparently owing to dilation of the left ventricle which was 12 cm. in circumference and 10 mm. thick. Sectioned surfaces showed no evidence of old or recent infarction. All of the valves were competent and free of vegetation or any other evidence of disease. The interatrial septum had a patent foramen ovale with a diameter of 5.1 cm. (Figure 1). The aorta was narrowed to a diameter of 1.3 cm. at a point 4 cm. above the aortic valve. The coronary arteries were normal. The pulmonary artery was considerably dilated and appeared to lead directly into the left lung. At the hilum, however, it bifurcated into the right and left branches. At the point of bifurcation the pulmonary artery was almost completely occluded by a thrombus showing prominent lines of Zahn (Figure 2). The thrombus, which was firm and adherent, extended into both branches of the pulmonary artery and into their major branches. The lumen of these arteries was approximately 5 per cent of normal. There was 300 cc. of fluid in the left pleural space and 100 cc. in the right. The lungs felt firm and on cut surfaces showed edema and congestion with a 6 mm. area of apparent infarction near the hilum of the left lung. Severe congestion of the liver was noted. In other organs there were no significant lesions.

Microscopic examination. Sections of the pulmonary artery were observed to be almost completely occluded by a thrombus that was well organized in its deeper portions with platelet, fibrin and red-cell layering only in the superficial and surface portions. No abnormality was noted in the wall of the artery. In sections of the heart slight hypertrophy of the myofibrillae composing the right ventricular wall was noted but there was no other significant lesion. Sections from both lungs showed moderate emphysema and edema, severe congestion and an area of hemorrhagic infarction adjacent to the pulmonary artery. In the liver, distention of the sinusoid spaces was noted. Sections of other organs showed slight congestion or no significant lesion.

Figure 2.—Thrombus almost completely occluding pulmonary artery at point of bifurcation.

SUMMARY

A case of auricular septal defect with almost complete thrombotic occlusion of the main pulmonary artery at its bifurcation is presented. No evidence of embolism or of underlying pulmonary artery disease could be found. Cardiac catheterization 16 months before death gave evidence of pulmonary hypertension and septal defect with a right-to-left shunt. The condition of the patient deteriorated progressively for nine years. She died of acute pulmonary edema at the age of 30.

ACKNOWLEDGEMENT

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Spontaneous Perforation of the Esophagus

A Report of Two Cases

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INCREASING NUMBERS of isolated reports of so-called spontaneous perforation of the esophagus are appearing in the literature. Although it is obviously a rare lesion, the fact that the authors observed two cases in two and a half years would indicate that it occurs more often than is commonly thought, and that physicians should be aware of the syndrome. The mortality rate is high[1, 2, 4, 5, 7] in untreated cases. Only by awareness of the condition can an early diagnosis be made and appropriate treatment promptly instituted. Excellent reviews of the subject have been published by Kinsella and co-workers[4] and by Samson.[7]

CASE REPORTS

CASE 1: The patient, a 54-year-old Negro man, was admitted to hospital on July 20, 1948, in severe distress with pain high in the epigastric area. Sixteen hours before admittance, he choked while eating beef steak, and when he attempted to vomit, severe epigastric and substernal pain that radiated straight through to the back occurred. It became increasingly severe.

The blood pressure was 160 mm. of mercury on systole and 100 mm. on diastole, the pulse rate 90, respirations 20 per minute and the temperature 98° F. The skin was cold and clammy. Upon auscultation of the heart, frequent extrasystoles were noted. There were occasional coarse rales at both lung bases. Spasm of the upper abdominal muscles was observed, and palpation in the epigastrium increased the substernal and low thoracic pain. Peristalsis was absent. Acute tenderness and spasm were present in the left costovertebral angle.

An irregular area of increased density in the lower part of the chest on the left side, compatible with a pneumonic process at the left base, was noted roentgenographically. An electrocardiogram was within normal limits. Leukocytes numbered 13,700 per cu. mm. of blood and the cell differential was within normal limits. There was a trace of albumin in the urine but no other abnormalities.

The impressions of the resident and consulting staff were as follows: Acute myocardial infarction, acute pancreatitis, dissecting aneurysm of the aorta, posterior penetrating duodenal ulcer and splenic infarction.

The condition of the patient deteriorated despite supportive measures and he died 30 hours after admittance.

At autopsy a 1½-inch longitudinal tear of the lower esophagus, approximately 1 inch above the cardioesophageal junction, was observed. No other lesion was noted in this area. A large piece of undigested meat lay in the mediastinum and there was evidence of purulent mediastinitis. There was 600 cc. of bloody fluid in the pleural cavity.

CASE 2: A 72-year-old white woman was admitted to hospital on March 14, 1951, semicomatose and in great distress. With difficulty it was learned from her that an hour previously she had become "car sick," had vomited and thereupon had had sudden severe pain in the epigastrium and the lower part of the left side of the chest "as if something gave way." The patient gave no history of previous gastrointestinal distress except for occasional mild dysphagia. It was discovered later that in 1940 a diagnosis of mild cardiospasm had been made by another physician.

Upon physical examination moderate cyanosis was noted and the skin over the flanks and extremities was blotchy. The blood pressure was 140 mm. of mercury on systole and 70 mm. on diastole, the pulse rate 120 and respirations 30 per minute. No murmurs were heard in the heart, the tones were fairly good and the rhythm was regular. Diminished resonance and impaired breath sounds were noted at the side and the back of the chest on the left side. There was moderate spasm of the upper abdominal muscles with acute tenderness in the epigastrium. Peristalsis was absent. Tenderness in the left flank and around the thoracic margin was noted.

In x-ray films of the chest and abdomen there was evidence of fluid in the lower left side of the chest and questionable evidence of air in the mediastinum but none of intraperitoneal air.

The hemoglobin content of the blood was 12.8 gm. per 100 cc. and erythrocytes numbered 4,230,000 per cu. mm. There were 23,100 leukocytes per cu. mm.—76 per cent polymorphonuclear cells, 36 per cent lymphocytes, 2 per cent monocytes and 1 per cent eosinophils.

A tentative diagnosis of a spontaneous perforation of the thoracic esophagus was made and was confirmed when gastric contents were withdrawn from the left pleural cavity by thoracentesis.

The patient improved when oxygen inhalation and plasma infusions were given and was taken to the operating room approximately two hours after admittance and three hours after the onset of pain.

The chest was opened through the bed of the eighth rib. A large amount of air was present in the pleural cavity. The lung was totally collapsed and the pleural cavity was filled with gastric contents. Particles of undigested food and considerable fibrin were present over the lung and mediastinal surfaces. A ragged slit was noted in the mediastinum with inflammatory reaction of necrotizing type in the mediastinal tissues. The entire thorax was lavaged with saline solution and all the food particles and fluid removed. The mediastinum was then widely opened and the esophagus mobilized. It was found necessary to mobilize the cardioesophageal junction to get adequate exposure. When this was accomplished a longitudinal slit, about 4 cm. in length, through all layers of the left esophageal wall was observed. It extended almost to the cardioesopha-

geal junction. The slit was repaired in layers with fine cotton sutures. The mediastinum was left open and the chest was closed. Two tubes, one anterior and one posterolateral, were placed for drainage. A Levine tube had previously been placed under direct vision into the stomach for decompression.

Gastric suction and water seal drainage were provided and penicillin, streptomycin and aureomycin were given parenterally along with supportive fluids for the following several days. The patient recovered gradually and was discharged on the 18th postoperative day. She was taking an adequate soft diet by the seventh postoperative day.

DIAGNOSIS

The symptoms of perforation of the esophagus are so severe that it is obvious both to the patient and the physician that a catastrophic incident has occurred. Although the symptoms usually are such as to indicate an upper abdominal lesion, the associated dyspnea and cyanosis suggest difficulty above the diaphragm. The pain is sudden and excruciating, usually follows a sudden effort of regurgitation and may be described as epigastric or substernal. Pain in the lower thoracic region of the back is common, as is pain low in the left side of the chest. Mediastinal emphysema (as was noted in Case 2) and palpable crepitation in the neck later in the course of the disease may be noted. Roentgenograms may reveal evidence of fluid or air in the pleural cavity. This was observed in both of the cases here reported. Swallowed Lipiodol® may extravasate into the mediastinum or pleural cavity, further confirming the diagnosis. Aspiration of gastric contents from the pleural cavity may give confirmatory evidence if the mediastinal pleura has been ruptured, as it was in both of the cases reported here.

TREATMENT

All recent communications[3, 4, 6, 7] have emphasized the need for immediate surgical repair. The critical appearance and state of the patient should present no contraindication to thoracotomy after the institution of rapid measures toward supportive treatment. These initial measures consist of oxygen inhalation, infusion of plasma or whole blood, administration of antibiotics and, in the presence of tension or excessive amounts of fluid, aspiration of the pleural cavity.

Recovery following late drainage of the pleural cavity has been reported in a few cases. This procedure should be reserved for misdiagnosed cases in which the patient is seen late in the course of the illness following an initial spontaneous improvement.

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Cat Scratch Disease on the San Francisco Peninsula

LOIS PENDLETON TODD, M.D., Stanford, Calif.

CAT SCRATCH DISEASE, or benign lymphoreticulosis, is a disorder first recognized by Foshay of Cincinnati in 1932. He observed certain cases of lymphadenitis in which the pus was always sterile and in which serological studies were negative for tularemia. A history of cat bite or scratch, or of close association with cats, was obtained in all these cases. The observations were never published.

In 1945 Hangar of New York studied an apparent occurrence of this disease in himself. Paronychia developed and regional adenitis, malaise and fever ensued. Rose and Hangar prepared an antigen which, when it was injected intradermally, evoked intense reaction similar to the response to tuberculin. With the same antigen they obtained positive reaction in patients formerly studied by Foshay. All attempts to inoculate hen's eggs and transmit the disease to animals failed. In Hangar's case there was no known bite or scratch from the family cat, but there was intimate contact with the animal at the time paronychia developed.

When in 1947 Debré of Paris visited Foshay, he learned of the cat scratch disease entity and of the intradermal test with the specific antigen. Having seen similar cases in Paris, he took some antigen with him on his return and was able to prove the identity of the disease with that described by Foshay. His report, La Maladie des Griffes de Chat,[4] was the first that was published. Since then many cases have been reported from Paris. The first report in English was made by Greer and Keefer in 1951.[7] Daniels and MacMurray of the District of Columbia made extensive studies and published two papers.[2,3] There

From the Stanford University Health Service and The Palo Alto Clinic.

have been three reports of cases in California, by Gifford and co-workers,[6] by Epstein[5] and by Cuttle,[1] all published in 1952. So far no cases have been reported from the San Francisco Peninsula.

It should be noted that although the cat plays an important part in dissemination, the animal itself has never been found to show any signs of disease, and the skin test with specific antigen gives no reaction.

The disease has not yet been etiologically defined but it is presumed that the causative factor is a large virus related to the psittacosis lymphogranuloma group. There is usually a tendency to slight cross-agglutination with psittacosis antigen. The disease has occurred in patients from 18 months to 57 years of age.

REPORT OF A CASE

The patient, a man 29 years of age, reported to the Health Service, Stanford University, on May 5, 1952, because of a lump just above the right elbow. He felt well and there were no symptoms of acute infection. No enlargement of axillary nodes was noted. There was a small scratch with indolent infection on the dorsum of the third finger of the right hand. No treatment was given but the patient was told to return if the lump did not recede. Ten days later he returned because the mass above the elbow was considerably larger and on this visit two small nodes were felt in the right axilla. The indolent lesion on the finger was unchanged. Although the patient had had no malaise and no fever that he was aware of, when inquiry elicited that there were two house cats to which he was exposed, the possibility of cat scratch disease was considered. The hemoglobin content of the blood was 15 gm. per 100 cc. Erythrocytes numbered 5 million per cu. mm. and leukocytes 4,900—49 per cent lymphocytes, 47 per cent neutrophils, 2 per cent basophils, 1 per cent monocytes and 1 per cent eosinophils. The sedimentation rate was 6 mm. in one hour. Heterophil antigen agglutination and the result of a Wassermann test were negative.

On June 6 an intradermal test with cat scratch disease antigen was carried out and 48 hours later there was a 4 mm. papule with a 2.5 cm. pink areola at the site of injection, which was interpreted as a strongly positive reaction. The epitrochlear mass by then was greatly enlarged and fluctuant. At the center the skin was dark pink, and from there it faded gradually to a violaceous color at the periphery. The epidermis over the area of deepest color was scaling (see Fig. 1). At this time 40 cc. of sanguinopurulent exudate was withdrawn. The axillary nodes had coalesced and the mass was approximately 4 cm. in diameter, but was not fluctuant.

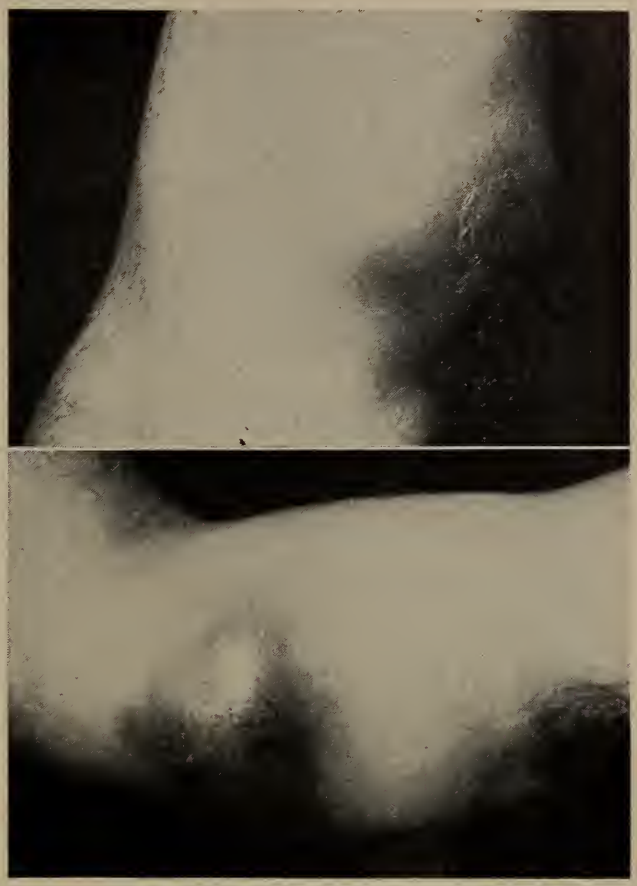

Figure 1.—*Upper*—Mass above the elbow at time of greatest enlargement and discoloration, June 6. *Lower*—On June 12 the mass was somewhat smaller than on June 6. This picture was made six days after first aspiration and just before the second.

No evidence of disease of the hilar nodes was seen in a roentgenogram of the chest taken June 9. On June 12 tuberculin, histoplasmin and coccidioidin skin tests were done and the results were negative. On June 16 agglutination for tularemia was negative. Complement fixation for Q fever was negative in all dilutions. Complement fixation with psittacosis antigen* was strongly positive in dilution 1:2 through dilution 1:16, equivocal at 1:32 and negative in greater dilution. Two weeks later there was a strongly positive reaction extending through dilution 1:32, a 1 plus reaction at 1:64 and negative result in higher dilutions.

Material was aspirated from the epitrochlear mass four times in 18 days and 94 cc. was withdrawn. The axillary tumor was aspirated twice and 8 cc. of yellowish purulent material was removed. The pus was sterile aerobically and anaerobically. Results of inoculation of guinea pigs, white rats and macacus rhesus monkeys were negative. An antigen was prepared from the material† and later used for intra-

*Through the courtesy of the Hooper Foundation.

†Courtesy of Dr. Houghton Gifford, Stanford Medical School.

dermal test on the patient, and again there was a very strongly positive reaction.

The masses gradually diminished and at last disappeared.

SUMMARY

A case of cat scratch disease in a resident of the San Francisco Peninsula, with suppuration of regional lymph nodes, is reported.

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Cat Scratch Disease in the Los Angeles Area

D. EDWARD FRANK, M.D., Sun Valley, California, and HERBERT I. HARDER, M.D., USAF (MC), Glendale

SINCE THE ORIGINAL REPORTS of cat scratch disease in Europe in 1950[2] and this in country in 1951[5] cases have been reported from many places, particularly from eastern, middle western and southern areas of the United States. Several cases in California have been reported[1, 3] and others diagnosed but not reported.[6, 8]

Several other descriptive terms have been used for the disease, such as cat scratch fever, benign inoculation lymphoreticulosis, cat scratch syndrome, benign lymphoreticulosis of inoculation, and possibly others. However, the uniformity of symptoms and data in reported cases seems to warrant the name *cat scratch disease.*

It is a benign self-limited disease, apparently of viral origin.[7] Characteristic features are tenderness of regional lyph nodes in association with systemic symptoms such as fever and malaise (rarely, cutaneous manifestations) that develop some two to three weeks after the appearance of a local, encrusted, oozing lesion at the site of a scratch or a bite by a cat or a break in the skin of a person who handles cats.

Much research on laboratory procedures for aid in diagnosis has shown that results of various kinds of determinations are essentially within normal limits, although in many cases the number of eosinophils in the blood is high in relation to the total number of leukocytes. The diagnosis can readily be established, however, by observing the reaction to intradermal injection of an antigen prepared from a suppurative node, or by biopsy of such a node.[4]

REPORT OF A CASE

A girl five and a half years of age was first observed in the office of one of the authors in Sun Valley, California (near Los Angeles) on October 13, 1952, with complaint of fever, slight nuchal rigidity and tenderness of axillary lymph nodes. Upon physical examination a small fresh scar on the left side of the chest was noted, and the lymph nodes in the left axillary region were enlarged, very tender and appeared to be matted together rather than separate and discrete. The temperature was 100° F. Penicillin, 450,000 units, was injected intramuscularly and a triple sulfonamide, gm. 0.25 by mouth four times daily. Three days later the axillary mass was larger, definitely matted and quite tender. No abnormalities were noted on examination of the blood or on urinalysis. Aureomycin, 100 mg. three times daily by mouth, was prescribed. When the patient was next examined four days later the nodes, still tender and undiminished in size, felt fixed in place. Aureomycin was continued. On October 27 the nodes were of the same size but the tenderness had subsided and surgical biopsy was advised.

The patient entered the hospital October 30. The hemoglobin content of the blood was 12.1 gm. per 100 cc. and erythrocytes numbered 4.3 million per cu. mm. Leukocytes numbered 7,000 per cu. mm.—41 per cent neutrophils, 48 per cent lymphocytes, 4 per cent monocytes and 7 per cent eosinophils. Results of urinalysis were normal.

A 4x3x1.5 cm. mass of tissue including four lymph nodes was removed for pathologic study.

PATHOLOGIST'S REPORT

The specimen was a mass of fibrofatty tissue with several lymph nodes imbedded in it, the largest of them 1 cm. in diameter. On microscopic examination of the lymph nodes it was noted that there were numerous semicaseous, necrotic foci containing a few polynuclear cells and surrounded by heavy mantles of epithelioid cells with occasional giant cells. No acid-fast organisms were observed. The diagnosis was granulomatous lymphadenitis consistent with cat scratch disease.

When questioned specifically the parents of the patient recalled that a cat had scratched her on the

chest about two and a half weeks before the onset of symptoms. The wound was small and had caused no alarm even though a small encrusted, oozing lesion, a slow-healing "sore," developed three days later.

Antigen prepared from the node of a patient who had had cat scratch disease six months previously was injected intradermally and the reaction (read like a tuberculin test reaction) was 2 plus 48 hours later.

SUMMARY

A case of cat scratch disease in a patient in the Los Angeles area was diagnosed by biopsy of enlarged lymph nodes and subsequent test by intradermal injection of antigen. The proportion of eosinophils in the blood was relatively high.

7949 Vineland Avenue.

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For information on preparation of manuscript, see advertising page 2

EDITORIAL

Interim Sessions

On December 13 the California Medical Association rang down the curtain on its Interim Session of the House of Delegates. The closing date came just nine days after the American Medical Association had concluded its Interim Session in St. Louis.

These two sessions were alike in one respect, unalike in another. The similarity came in the fact that both could probably have been cancelled without doing any damage. The disparity lay in the fact that the C.M.A. meeting was probably the last of its kind to be held, whereas the A.M.A. winter session is destined to continue.

Most medical organizations find it possible to conduct their legislative work on the basis of one annual meeting. If adequate time is allowed at annual sessions, the policy-making work of any large body can be conducted on an unemotional, straight-line basis. This concept, of course, is conditioned on the maintenance of a properly selected board of directors or council to act between the annual sessions of the top policy-making body.

When the A.M.A. started its Interim Sessions, times were somewhat different from the present. The House of Delegates, by and large, did not repose in the A.M.A. Board of Trustees the high degree of confidence noted today. Members of the House of Delegates wanted additional opportunity to establish policy and eliminate the possibility of poor policy emanating from the more frequently meeting Board of Trustees. The Interim Session was the device used to achieve this aim.

Once the A.M.A. Interim Session was launched, it became the occasion for adding scientific sessions. Then came scientific exhibits, then technical exhibits. Thus a second annual session was created in easy stages.

Attendance at the scientific meetings of the Interim Session of the A.M.A. has been somewhat disappointing to those who labor to produce a scientifically sound program. The ideal of bringing postgraduate training to the various cities of the country has not been realized.

The C.M.A. Interim Session was probably also set up as a protest on the part of some members against infrequent meetings, between which the C.M.A. Council handled all the Association's affairs. From almost the beginning of these meetings, however, the lack of confidence in the Council which was apparent in the revised Constitution and By-Laws, under which the Interim Session was created, began to dissipate. The goal of introducing business at one meeting, to be acted upon six months later, was never realized.

Emergency measures, eligible for action at the same meeting at which they were introduced, became the rule rather than the exception. Reference committees, which begged for expressions of opinion during the six-month lag between meetings, found little or no response from either members of the House of Delegates or the C.M.A. membership at large. The object sought in deferring action for six months was never attained.

Now, the By-Laws have been so amended that an Interim Session of the C.M.A. House of Delegates will be held only if the House itself, in Annual Session, votes to hold an Interim Session in the final six months of the year. Provision is still made for calling special meetings of the House, either by action of members of the House or by the Council.

Thus the opportunity for more frequent meetings of the House of Delegates is preserved but the requirement for additional meetings is dropped. This arrangement should be amply flexible to take care of the Association's business without adding the burden of another meeting to the load of the Delegates. This makes sense.

CALIFORNIA MEDICAL ASSOCIATION

NOTICES & REPORTS

Your C.M.A. Dues—What They Buy

DONALD D. LUM, M.D.
Chairman, Auditing Committee
California Medical Association

YOU, DOCTOR, paid $40 in dues to the California Medical Association last year. What did you get for your money?

Perhaps you are one of the few C.M.A. members who take the time to study the annual financial report. It is published in CALIFORNIA MEDICINE before each annual session, in full detail, but it is doubtful that its Hooper rating is very high.

Do you know, for instance, that for each dollar you pay into the C.M.A. in dues the Association takes in another 33 cents from other sources? Do you know that CALIFORNIA MEDICINE is not only self-supporting but returns a profit to the C.M.A. general fund?

As a C.M.A. member you are interested, of course, in how your dues money is spent and how much it costs *you* to maintain the state organization and carry on its services.

To show the uses to which your money in the C.M.A. is put, the fiscal year ended June 30, 1952, may be taken as a typical current year in receipts and expenditures. During that period you and your fellow members paid the C.M.A. $447,039 in dues. The Association took in another $146,816 from advertising, subscriptions, interest, exhibits and other sources. Thus your dues accounted for just three-fourths of the total revenue.

For this same period, the auditor's report shows, administrative expenses took 28.2 per cent of total funds for the year. Scientific, education and public relations activities took 41.1 per cent of these funds and the journal took 21.9 per cent. That left 8.8 per cent unexpended and taken into surplus at the fiscal year-end.

If we break down these percentage figures still further, we find that the actual administration of the two C.M.A. offices and their allied activities totaled just 13 per cent of the year's expenditures, or $5.20 of your dues money. When legal services are added to the actual C.M.A. office costs, $6 of your $40 dues are accounted for.

The C.M.A. maintains its headquarters office in San Francisco, where it employs five men and eight women. In the Los Angeles office there are two men and one woman. In addition, there are two part-time employees in the offices of the American Cancer Society, California Division, working with the Cancer Commission. There are two part-time employees in Stockton, handling the postgraduate work, and there is one full-time employee in the service of the Blood Bank Commission in San Francisco.

Two of these employees are physicians. Dr. Franklyn C. Hill serves as medical director of the Cancer Commission. His compensation is split between the C.M.A. and the American Cancer Society, California Division. Dr. Charles A. Broaddus serves half-time as Director of the Committee on Postgraduate Activities.

JOHN W. GREEN, M.D. . . . . President
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That is the staff working for you, under the direction of the C.M.A. Council, which controls all operations and establishes all budget recommendations for the approval of the House of Delegates.

If you translate the administrative salaries of these people into terms of your $40 annual dues, you are paying $2.88 a year for your administration. You pay another $2.08 a year to put on the Annual Session. You pay 16 cents for telephone and telegraph, 40 cents for rent and 8 cents for postage. Your Woman's Auxiliary takes 12 cents of your $40, and the Student A.M.A. the same amount. Last year you paid 8 cents for improvements to the San Francisco office, to make it a more presentable and more efficient operating base.

Your Council and Executive Committee, handling the responsibility of operating the C.M.A., cost you 52 cents and your Delegates to the American Medical Association accounted for another 68 cents.

In the section of expenditures classified by the certified public acoountants as "scientific, education and public relations," the last-named item was the most costly to you, taking $6.35 of your $40 dues. Public policy and legislation accounted for another $3.47 of your dues and the Cancer Commission and Postgraduate Committee required $1.08 and $1.07, respectively. Your dues contribute 36 cents to two medical libraries which provide a packet service for all members. You spent 16 cents to encourage recruitment of student nurses.

These figures actually represent more than your pro rata cost of C.M.A. activities out of your $40 dues. With the added income from exhibits, advertising, etc., the Association had available $53.12 per member, of which your own share was the amount of the dues. The breakdown here is calculated on the dues money only; if other revenues are considered in the total, just reduce each of these pro rata costs by 25 per cent and you will find the actual cost, *in dues*, to you.

Your journal, CALIFORNIA MEDICINE, cost you $8.76, which includes $5.70 for printing, $1.12 for salaries, 99 cents for advertising sales expense and 11 cents for illustrations. Of course, the journal made a profit, so that actually it returned money to your Association; the cost figures are given here to show their relationship to all other expenditures.

It is interesting to note that of $593,855 disbursed last year, only $80 was charged to "miscellaneous" under general expenditures and only $145 to "sundries" under the journal accounting. The smallness of these items indicates the accuracy with which the auditors have established classifications of expense.

For the fiscal year ended June 30, 1952, here's how the C.M.A. shows its revenues:

	Amount	Per Cent of Total
*Dues	$412,379	69.4
Exhibits	20,055	3.4
Interest and miscellaneous	5,914	1.0
Advertising	117,683	19.8
Members' subscriptions	34,660	5.8
Other subscriptions	2,609	0.4
Reprint sales	555	0.1

*After deducting journal subscriptions to meet postal requirements.

TABLE 1.—*Details of expenditures by California Medical Association and the cost of each item in terms of dues.*

	Amount	Per Cent Total	Cost Per $40 Dues
ADMINISTRATIVE EXPENSE			
Salaries	$ 42,917	7.2	$2.88
Officers, Council, Executive Committee travel	7,956	1.3	.52
A.M.A. Delegates	10,481	1.7	.68
Annual Meeting	31,174	5.2	2.08
Council-Executive Committee meetings	2,195	0.4	.16
County Secretaries' meeting	1,145	0.2	.08
Los Angeles office expense	1,898	0.3	.12
Legal Department	12,065	2.0	.80
Organization expense	21,780	3.7	1.48
Rent	5,687	1.0	.40
Telephone-telegraph	2,354	0.4	.16
Supplies—office expense	6,076	1.0	.40
Postage	1,067	0.2	.08
Annuities	5,173	1.0	.40
Equipment	3,941	0.7	.28
Office improvements	1,326	0.2	.08
Payroll taxes	2,193	0.4	.16
Pensions	4,260	0.7	.28
Woman's Auxiliary	1,750	.03	.12
Student A.M.A.	1,708	0.3	.12
Miscellaneous	80	....	....
Sub-total	$167,228	28.2	$11.28
SCIENTIFIC, EDUCATIONAL AND PUBLIC RELATIONS			
Public Relations	$ 94,236	15.9	$ 6.35
Public Policy and Legislation	51,908	8.7	3.47
Benevolence Fund	10,936	1.8	.72
Postgraduate Instruction	15,900	2.7	1.08
Cancer Commission	15,201	2.7	1.07
Other Committees	48,207	8.1	3.23
Libraries	5,468	0.9	.36
Student Nurse Recruitment	2,500	0.4	.16
Sub-total	$244,356	41.1	$16.44
JOURNAL—*California Medicine*			
Printing	$ 84,623	14.3	$ 5.70
Advertising sales cost	14,667	2.5	.99
Salaries	16,795	2.8	1.12
Rent	2,745	0.5	.18
Telephone-telegraph	1,047	0.2	.08
Postage and mailing cost	4,499	0.8	.31
Addressing	1,704	0.3	.11
Illustrations	1,631	0.3	.11
Advertising discounts	2,114	0.4	.16
Sundries	145	....	....
Sub-total	$129,970	21.9	$ 8.76
SURPLUS	$ 52,301	8.8	$ 3.52
TOTALS	$593,855	100.0	$40.00

For the same period, expenditures, classified as the independent auditors show them, were:

	Amount	Per Cent of Total
Administrative	$167,228	28.2
Scientific, education and public relations	244,356	41.1
Journal	129,970	21.9
Excess revenues—to surplus	52,301	8.8

The three major expense classifications above are broken down into many components in the accompanying Table 1. There is no attempt here to define the various classifications of expense; most of the subtitles are self-explanatory. Mention should be made, however, that the item labeled "organization expense" is the cost of litigation carried on by the C.M.A.

This breakdown of expenditures will show you how much was spent last year for each item, what percentage of total expenditures is represented by each item and how much that cost is to you, out of your $40 dues. Remember that your dues dollar is worth $1.33 throughout this tabulation, so that your real cost in dues is 25 per cent less than the figures listed.

It is obvious from a study of this breakdown that the California Medical Association is looking after all the interests of its members, be they legal, legislative, educational, public relations or general. It is also obvious that some part of the strength of any large organization comes from its size and its ability to spread the cost of various programs among its members. Some of the results obtained by the various departments of the C.M.A. have cost only a few pennies per member but have bulked large in their benefits to the entire membership.

NEWS & NOTES

NATIONAL • STATE • COUNTY

ALAMEDA

Dr. Herbert M. Evans of Berkeley has been named as recipient of a 1954 *Modern Medicine* Award for Distinguished Achievement, Dr. Walter C. Alvarez of Minneapolis, editor-in-chief of the magazine, announced. Dr. Evans was given the award in recognition of his work in furthering of understanding of human reproduction, and of the physiology of the pituitary gland and his discovery of vitamin E.

The awards are given annually by *Modern Medicine* to recognize outstanding contributions to the advancement of medical practice.

* * *

A six-day graduate assembly for instruction and discussion of **The Dynamics of Endocrine Disease** will be held February 8-13 under the auspices of the Committee for Graduate Medical Education of the Alameda-Contra Costa Medical Association and the Institute for Metabolic Research of the Highland-Alameda County Hospital. The tuition fee is $100 and enrollment is limited to 100 persons.

FRESNO

Dr. C. S. Mitchell was elected president-elect of the Fresno County Medical Society at the annual meeting of the organization in December, and Dr. Fred E. Cooley was installed as president for 1954, succeeding Dr. William N. Knudsen. Dr. J. M. Arthur was elected vice-president and Dr. J. Cooper Collins secretary-treasurer. Drs. R. A. Donald, Byron Evans and Joseph A. Logan were elected to the board of governors for three-year terms.

Delegates to the California Medical Association's convention in May will be Drs. W. L. Argo, E. C. Halley and J. E. Young. Alternates are Drs. Bruce Berg, A. F. Howard, and J. F. Murray.

LOS ANGELES

A $24,105 **institutional research grant** to the University of Southern California School of Medicine by the American Cancer Society was announced late last month. The grant was given to help support a wide range of cancer research projects under the direction of the school's interdepartmental cancer research committee, representing all departments of the medical school, which is headed by Dr. Ian Macdonald, associate clinical professor of surgery at U.S.C. and chairman of the Cancer Commission of the California Medical Association.

NAPA

Dr. Harold E. James was elected president of the Napa County Medical Society at a recent meeting. He succeeds Dr. Fred Heegler. Dr. Herbert Messenger was elected vice-president, and Dr. Merle F. Godfrey was reelected secretary-treasurer.

SAN FRANCISCO

The first annual David W. Yandell medal was awarded by the Louisville Surgical Society to **Dr. Emile Holman,** professor of surgery at Stanford University School of Medicine, at a recent meeting in Louisville, Kentucky.

The annual award and lectureship were instituted to honor the memory of David W. Yandell, founder of the society, who was professor of surgery in the University of Louisville School of Medicine from 1869 to 1898.

Several surgical conferences were conducted at the University of Louisville by Dr. Holman preceding the presentation of the annual Yandell Lecture.

* * *

Dr. Windsor Cooper Cutting, who had been serving as acting dean of the Stanford University School of Medicine since July, recently was appointed dean. His permanent appointment by the University's Board of Trustees was announced by Wallace Sterling, president of the university.

At the same time it was announced that **Dr. Jay Ward Smith** had been named associate dean for professional services and that **Dr. George Bernard Robson** had been promoted from acting assistant dean to associate dean for academic affairs.

Dr. Cutting is the fourth dean of the Stanford Medical School. He succeeds Dr. Loren R. Chandler. After heading the school for 20 years, Dr. Chandler announced his resignation as dean in October 1952. He will continue as professor of surgery.

* * *

The San Francisco Chapter of the **Pan American Medical Association** held its annual dinner meeting honoring the local consular representatives and visiting Latin American physicians and students, at the Bohemian Club, December 5, 1953.

The newly elected officers for 1954 are: Dr. Marius A. Francoz, president; Dr. Ralph A. Reynolds, first vice-president; Dr. Berthel H. Henning, second vice-president; Dr. Leonard Barnard, treasurer, and Dr. Knox H. Finley, secretary.

GENERAL

Dr. James C. Malcolm, health officer of Alameda County, was elected president of the California Conference of Local Health Officers at a recent semi-annual meeting of the organization in Eureka. Dr. Harold Chope, director of public health and welfare of San Mateo County, was elected vice-president, and Dr. Edward Lee Russell, Orange County health officer, secretary.

* * *

The eleventh annual meeting of the **American Geriatrics Society** will be held in San Francisco, June 17-19, 1954, just preceding the meeting of the American Medical Association. The meeting will be open to all members of the American Geriatrics Society and to physicians and other scientists who are interested in the field of geriatrics. The program will cover many aspects of geriatric medicine, and there will be several panel discussions on such subjects as recent developments in cardiology and methods of determining operability in older patients. Oustanding clinicians and investigators will participate.

Dr. Laurance W. Kinsell, Oakland, is in charge of local arrangements for the meeting.

* * *

The **International Academy of Proctology** has announced its annual cash prize and certificate of merit award contest for 1953-54. The author of the best unpublished

contribution on proctology or allied subjects that is submitted will be awarded $100 and a certificate of merit. Certificates will be awarded also to physicians whose entries are deemed of unusual merit. This competition is open to all physicians in all countries, whether or not affiliated with the International Academy of Proctology.

The formal award of the first prize and a presentation of other certificates will be made at the annual convention dinner dance of the Academy in April 1954. Entries are limited to 5,000 words, must be typewritten in English, and submitted in five copies. They must be received no later than February 1, 1954. Entries should be addressed to the International Academy of Proctology, 43-55 Kissena Boulevard, Flushing, New York.

POSTGRADUATE EDUCATION NOTICES

RESEARCH STUDY CLUB OF LOS ANGELES

23rd Annual Clinical Convention of Ophthalmology and Otolaryngology

Date: January 18 through January 29, 1954. Each applicant must be a member in good standing of the American Medical Association in order to become eligible for attendance.

Fee: $100.00.

Contact: Pierre Violé, M.D., Treasurer, 1930 Wilshire Boulevard, Los Angeles 5, Calif.

UNIVERSITY OF CALIFORNIA AT LOS ANGELES

General Surgery

Date: February 3 through April 7, 1954 (Wednesday evenings, 7:30-9:30)

Pathological Physiology

Date: February 15-May 3.

Dermatology in General Practice (limited to 20 students).

Date: February 17 to March 24.

Symposium on Anesthesiology

Date: May 13 and 14.

Electrocardiography

Date: June 2-18.

Courses for Laboratory Technicians: Hematology—February 15-May 24, V. A. Hospital, Long Beach; limit 20. Laboratory Technicians Symposium—June 19 and 20.

Contact: Thomas H. Sternberg, M.D., Head of Postgraduate Instruction, Medical Extension, University of California, Los Angeles 24.

UNIVERSITY OF CALIFORNIA, SAN FRANCISCO

Cardiovascular Diseases

Date: February 1 through 5, mornings at Medical Center. This course will cover the recent advances in the diagnosis and treatment of diseases of the cardiovascular system. While designed primarily for the internist, it will be of interest also to the general physician.

Electrocardiography

Date: February 1 through 5, afternoons at Medical Center. This course is designed to review the interpretation of electrocardiograms in all its aspects. Daily lecture periods will be followed by periods of practice, when the students will interpret electrocardiograms under the supervision of instructors. The class will be divided in groups based on previous experience.

NOTE: The two courses described above, *Cardiovascular Diseases* and *Electrocardiography*, are separate and physicians may take one without the other. It is suggested, however, that attendance at both courses will give a fuller and more rounded understanding of cardiovascular diseases.

Diagnostic Exfoliative Cytology for Physicians

Date: February 8 through 19 (tentative dates) all day, at Medical Center.

Symposium on Heart and Lung

Date: February 19, 20, 21 (week-end), University of California Extension Building, 540 Powell Street. This short course will give an intensive review of the most recent advances in the diagnosis and treatment of diseases of the heart and lung; with demonstrations and discussions.

Course for General Practitioners

Date: March 8 through 12, all day, Mount Zion Hospital, San Francisco. This program will be presented by the Visiting Staff of Mount Zion Hospital in collaboration with University of California Medical Extension. It will include many subjects of interest to the general physician, with demonstrations of patients and discussions of illustrative cases.

Symposium on Emergencies: Medical, Surgical, Obstetrical

Date: April 16, 17, 18 (week-end), University of California Extension Building, 540 Powell Street, San Francisco.

Course in Internal Medicine, American College of Physicians

Date: June 14 through 18, all day, University of California Extension Building, 540 Powell Street, San Francisco.

Conference on General Surgery

Date: September 13 through 17, all day, at Medical Center. This conference will be offered for the purpose of stressing the newer concepts, methods of diagnosis, treatment and techniques in surgery. Throughout the session emphasis will be placed on the diagnosis and treatment of malignant lesions. Instruction will consist of didactic periods, panel discussions, and actual operative demonstrations which will be televised from the operating room to the lecture hall. This program will be designed for general practitioners who are doing surgery. The class will be limited.

Conference on Fractures and Diseases of the Bone

Date: September 20 through 23, all day, San Francisco County Hospital. The program will cover the newer concepts, methods of diagnosis, treatment and techniques. There will be didactic lectures, panel discussions, and actual demonstrations of illustrative cases. The class will be limited.

Medicine for General Practitioners

Date: September 21 to December 7, Tuesday evenings, East Oakland Hospital. Oakland. This is a continuation course which is offered every year, with complete change of program and speakers. Class limited.

Evening Lectures in Medicine, Part 1 and Part 2

Date: September 16 through December 9, Thursday evenings, Mills Memorial Hospital, San Mateo. This is also a continuation course which will be of interest to both internists (Part 1) and to physicians in general practice (Part 2).

Symposium on Endocrine Diseases and Geriatrics

Date: October 22, 23, 24 (week-end), University of California Extension Building, 540 Powell Street, San Francisco. A review of recent developments in both fields, with suggestions for the management of patients past the age of fifty.

Microscopy (Part 1)

Date: January 14 through March 18, Thursday evenings, Medical Center.

Photomicrography (Part 2)

Date: April 1 through June 3, Thursday evenings, Medical Center. Part 2, Photomicrography, in monochrome and in color, cannot be taken without Part 1, but Part 1, Microscopy, which includes the critical use of the microscope, may be taken alone. These courses are open to any persons who are interested in the study of the topics listed above. Class limited.

Contact: Stacy R. Mettier, M.D., Head of Postgraduate Instruction, Medical Extension, University of California Medical Center, San Francisco 22, California.

COLLEGE OF MEDICAL EVANGELISTS

Otolaryngology (8 periods)

Date: February 9 through March 30, 1954. Tuesdays, 8:00-9:30 p.m. Tuition: $30.00. Dr. H. James Hara and Associates.

Varicose Veins (6 periods)

Date: March 2 through April 13, 1954. Tuesdays: 7:00-9:00 p.m. Tuition: $25.00. Carl H. Talmage, M.D., and Associates.

Histology and Histopathology of the Eye (15 periods)

Date: March 3 through June 9, 1954. Wednesdays: 7:30-9:30 p.m. Tuition: $60.00. I. G. Sommers, M.D.

Gynecology (10 periods)

Date: March 24 through May 26, 1954. Wednesdays: 8:00-9:00 a.m. Tuition: $30.00. Dell D. Haughey, M.D., and Associates.

Operative Surgery (12 periods)

Date: March 24 through June 9, 1954. Hunterian Laboratory and L.A.C.G.H. Wednesdays: 9:30 a.m.-12.00. Tuition: $200.00. Harry A. Davis, M.D.

Minor Orthopedic Surgery (8 periods)

Date: April 1 through May 20, 1954. Thursdays: 8:00-9:30 p.m. Tuition: $30.00. Alonzo J. Neufeld, M.D., and Associates.

Surgical Diseases of Children (4 periods)

Date: April 6 through April 27, 1954. Tuesdays: 11:00 a.m.-12 m. Tuition: $20.00. J. Norton Nichols, M.D.

Endocrinology (8 periods)

Date: April 6 through May 25, 1954. Tuesdays: 8:00-9:30 p.m., Los Angeles County Hospital. Tuition: $30.00. Julius Bauer, M.D.

Thoracic Surgery (8 periods)

Date: April 14 through June 2, 1954. Wednesdays: 8:00-9:30 p.m., Los Angeles County Hospital. Tuition: $30.00. Lyman A. Brewer, M.D.

Diseases and Injuries of Bones and Joints (4 weeks) Full time.

Date: July 5 through 30, 1954. Dr. Taylor's office and various hospitals. Tuition: $100.00. G. Mosser Taylor, M.D., Alonzo J. Neufeld, M.D., and Associates. Unless otherwise stated or arranged, courses will be held in Osler House, corner State and Michigan Avenues.

Contact: Chairman, Section on Graduate and Postgraduate Medical Education, College of Medical Evangelists, 312 North Boyle Avenue, Los Angeles 33, California.

STANFORD UNIVERSITY SCHOOL OF MEDICINE

Ophthalmology Conference

Date: March 22 through 26, 1954. Registration will be open to physicians who limit their practice to the treatment of diseases of the eye; or eye, ear, nose and throat. Registration limited to thirty physicians. Instructors will be A. Edward Maumenee, M.D., Dohrmann K. Pischel, M.D., Jerome W. Bettman, M.D., Max Fine, M.D., Earle H. McBain, M.D., and Arthur J. Jampolsky, M.D.

Clinical Ophthalmological Conference

Date: March 20, 1954, Saturday, 9:30-3:00, Stanford Lane Hospital, 2398 Sacramento Street, San Francisco, California. *No fee.*

Contact: Lowell Rantz, M.D., 2398 Sacramento Street, San Francisco, California.

C.M.A. REGIONAL MEDICAL AND SURGICAL INSTITUTES

North Coast Counties, Santa Rosa, February 11-12, 1954.

San Joaquin Valley Counties, Fresno, March 4-5, 1954.

West Coast Counties, Santa Barbara, March 18-19, 1954.

Sacramento Valley Counties, Sacramento, April 15-16, 1954. Please note change of date for Sacramento Valley Counties Institute, from April 1-2 to April 15-16, 1954.

Southern Counties, Palm Springs, April 22-23, 1954.

Contact: C. A. Broaddus, M.D., Director, Postgraduate Activities, California Medical Association, 1036 N. Center Street, Stockton, California.

SEMINARS OF THE ALUMNI COMMITTEE OF THE CHILDREN'S HOSPITAL, SAN FRANCISCO

January 23, 1954—The Problems of Prematurity and the Newborn Infant.

March 30, 1954—Acute and Chronic Infections and the Choice of Antibiotics in Treatment.

April 24, 1954—Childhood Ecology, with a discussion of physical, mental and emotional growth and development of the young child; the effects of deprivation of maternal care, and the impact of environment on the child.

A fee of $15.00 will be charged for attendance at all the seminars and those who wish to have further details or be on the mailing list for such details may write to: H. E. Thelander, M.D., Children's Hospital, 3700 California Street, San Francisco.

THE PHYSICIAN'S *Bookshelf*

ATOMIC MEDICINE. Edited by Charles F. Behrens, M.D., Rear Admiral, MC, U. S. Navy; formerly Director, Atomic Defense Division, Bureau of Medicine and Surgery, Navy Department. The Williams and Wilkins Company, Baltimore, 1953. 632 pages, $11.00.

This is probably the most complete single volume written on the subject of atomic medicine for information to all physicians and to everyone concerned with civilian defense. Since the first edition of this book, which appeared in 1949, there has been extensive revision of many of the chapters with the introduction of much new material. A new chapter has been provided on the administration and dosimetry of radioisotopes. Also because of the continued interest in the use of higher voltage acceleration there has been considerable information added regarding the medical aspects of this subject. The chapter on defense against atomic weapons has been entirely rewritten from a survival standpoint.

From the very beginning this book has included a great deal of information for all physicians who are interested in the many aspects of atomic warfare and atomic medicine and as to what can be done with regard to civil defense in the event of an atomic war. There are 22 chapters in this book and some of the chapters deal with the following subjects: Prevention and cure of radiation-caused damage to the human body; use of radioactivity as a medical tool; future possibilities for diagnosis and treatments; the role doctors may be called upon to fill in civil defense; dosimetry and administration of radioisotopes; and radioisotopes of medical interest other than radiophosphorus and radioiodine. These are but a few of the many interesting subjects dealt with in this book. This book should be in the library of every physician who wishes to keep abreast of the newer developments in atomic medicine.

* * *

CHRONIC PULMONARY EMPHYSEMA—Physiopathology and Treatment. Maurice S. Segal, M.D., Clinical Professor of Medicine, Tufts Medical School; and M. J. Dulfano, M.D., Resident, Department of Inhalational Therapy, Boston City Hospital; Research Fellow in Medicine, Tufts College Medical School. Grune and Stratton, New York, 1953. 180 pages, $5.50.

This monograph is a welcome addition to the growing medical literature on pulmonary emphysema, and there is no comparable treatise available. The reader will be impressed with the variety of therapeutic measures which have proven to be valuable in treatment of this important disease. If the reader becomes confused, it is because this is a confusing disease and the selection of patients for application of the various procedures is not clear, because criteria for use of these measures are not well known.

Inhalation therapy is stressed more than would be approved by some experts in the field. The rationale and technique of such procedures as mechanical respiration, pneumoperitoneum, oxygen therapy, breathing exercises and the use of cortisone and corticotropin are adequately described. The important carbon dioxide intoxication syndrome is explained and properly stressed.

Most of the information is presented in brief form, but the bibliography of 176 references will lead the reader well into the complicated maze of more technical original studies.

Every physician who attempts to treat patients with pulmonary emphysema should consult this compact little volume of 180 pages.

* * * *

SURGICAL PATHOLOGY. Lauren V. Ackerman, M.D., Professor of Surgical Pathology and Pathology, Washington University, School of Medicine. C. V. Mosby Company, St. Louis, 1953. 836 pages, 913 illustrations, $14.50.

As the author has modestly indicated, this work is an introduction to the field of surgical pathology rather than a comprehensive reference text. Nevertheless, we should be grateful to Dr. Ackerman for one of the best books on surgical pathology published in the United States. The arrangement of the material, the references, and the terse, satisfactory presentations are excellent.

It is gratifying to note that the instructions for examining the stomach, colon and breast are found in introduction of the related chapters.

The subject of exfoliative cytology is cleverly interpolated in the systems involved. Exfoliative cytology thus becomes an adjunct to histopathological diagnosis rather than a separate science. Certainly the student of pathology should have no difficulty in properly evaluating this essential tool of the histopathologist.

Unfortunately for the surgical pathologist in California, the author has not included information about coccidioidomycosis, since we see more surgical specimens of this disease than postmortem material. A second edition should have such information.

The illustrations are well chosen and unusually good. This book is highly recommended for the medical student, the resident and the practicing pathologist.

* * *

THE SURGERY OF INFANCY AND CHILDHOOD—Its Principles and Techniques. Robert E. Gross, M.D., D.Sc., William E. Ladd Professor of Children's Surgery, Harvard Medical School, W. B. Saunders Company, Philadelphia, 1953. 1000 pages, 1488 illustrations on 567 figures, $16.00.

This is a book which is a masterpiece in its field and is unrivaled in its scope, content, clarity of expression and manner of presentation. It represents the culmination of a rich experience in a rapidly expanding field of surgery by one who has been foremost in personally enriching the field. All aspects of pediatric surgery are covered; the conclusions based upon the results of large groups of cases which have been carefully followed are given, and the author's preference for treatment is clearly indicated in each disorder. The illustrations are excellent. The book is destined to be a classic in its field for years to come. It is wholeheartedly recommended to anyone interested in any aspect of pediatric surgery.

CLINICAL DIAGNOSIS BY LABORATORY METHODS —A Working Manual of Clinical Pathology—12th Edition. James Campbell Todd, Ph.B., M.D., late Professor of Clinical Pathology, University of Colorado School of Medicine; Arthur Hawley Sanford, A.M., M.D., Emeritus Professor of Clinical Pathology, Mayo Foundation, University of Minnesota; and Benjamin B. Wells, M.D., Ph.D., Professor of Medicine, Department of Medicine, School of Medicine, University of Arkansas. W. B. Saunders Company, Philadelphia, 1953. 998 pages, 946 illustrations on 403 figures, $8.50.

The twelfth edition of this time-tested standard manual of clinical pathology contains comparatively little revision. Most of the changes have been made to bring various aspects of laboratory diagnosis into conformity with authoritative texts on particular subjects.

The reviewer believes that a text of this caliber should be more inclusive in its overall viewpoint and more complete in its scope. Although the authors may feel that detailed descriptions of all the tests on a subject cannot be given—for the argument, take the tests for liver function—mention of them might well be included so that the student could look further on his own. In the discussion of the biologic skin tests there is no mention of that for cat scratch fever, a disease which has provoked considerable interest during the past few years. The Table of Normal Values on pages 934 and 935 could be greatly expanded: There could be included also a brief discussion for the significance of some of the abnormal values.

* * *

OPHTHALMOLOGIC DIAGNOSIS. F. Herbert Haessler, M.D., Professor and Director of the Division of Ophthalmology, Marquette University School of Medicine. The Williams and Wilkins Company, Baltimore, 1953. 387 pages, $8.00.

The book has nine chapters and 387 pages. The book is written for ophthalmological students. It is a practical office or bedside approach to ophthalmological problems. It puts emphasis on the patient as a human being and the handling of the patient as well as diseases of the eye.

Very little bibliography is used; rather, it is the writer's approach to these various problems.

* * *

BRAIN SURGEON — The Autobiography of William Sharpe. William Sharpe, M.D., Director of Neurosurgery, Manhattan General Hospital, New York. Viking Press, Inc., 18 East 48th Street, New York, 1952. 271 pages, $3.75.

As the title of this book strongly suggests, it is not written primarily for the specialist in surgical diseases of the nervous system — who shuns such a sobriquet — but rather is directed to the general reader who for one reason or another is interested in biography or medicine or doctors or neurological surgery. Physicians who help constitute this group, however, will find much of this autobiography to be interesting. The sections in which Dr. Sharpe recounts his concept of his own contribution in the early development of neurological surgery, such as in "Cerebral Palsy," are of some historical import. Most readers, however, will find it to be an interesting series of personal yarns by a pioneer in a special field, which to many has seemed consistently to have excited more than its fair share of romantic appeal in the average person.

* * *

PITUITARY CHROMOPHOBE ADENOMAS—Neurology, Metabolism, Therapy. John I. Nurnberger, M.D., Research Associate, the Institute of Living, and Assistant Clinical Professor of Medicine (Neurology), Yale University School of Medicine; and Saul R. Korey, M.D., Associate Professor of Neurology, the School of Medicine, Western Reserve University. Springer Publishing Company, Inc., 44 East 23rd Street, New York 10, 1953. 282 pages, $7.00.

The limited field covered by this book is commented on by the authors in their preface; that almost 250 pages of text can be profitably devoted to the subject is open to question. Nonetheless, the authors have done a very good job of covering their subject, from the embryology of the pituitary to the treatment of its tumors. Whether any but the neurologist and endocrinologist will want to devote the time to reading the whole book is open to question, but it does provide an exhaustive reference work and should be useful in this regard.

* * *

HANDBOOK OF DIFFERENTIAL DIAGNOSIS. Harold Thomas Hyman, M.D. J. B. Lippincott Company, Philadelphia, 1953. 716 pages, $6.75.

In this compressed, well systematized volume, the author attempts to give the practicing physician and student an aid to differential diagnosis. He also endows it liberally with the personality of Dr. Hyman.

Unfortunately, the book falls short of being the "volume of small bulk and large value in daily clinical practice" which he would have it, although it appears accurate enough. An example of the type of procedure one must go through may be illustrated by the search necessary to find the discussion of pain in the leg on walking. Employing the index of symptoms and signs (printed in blue paper), one looks for "Pain" on page xxiv and is referred to "Anatomic Site." Under "Legs" on page xx, one is referred to page 374, which is "Lower Extremities, Disturbances of." Here one is referred to "Pain of Lower Extremities," page 315—where one finds the headline "Hands and Feet, Fingers and Toes, Pain in and Tenderness of." After reading through a page and a half, one gets to tenosynovitis which is a condition he might be seeking. If this seems a little disturbing, one can always go back to an ordinary textbook.

The common symptoms of fatigue or tiredness are not listed as such but are hidden under the name of asthenia. On the other hand, it is easy to find a good deal of therapeutic and diagnostic advice which one may not desire.

'DRILITOL' contains two effective antibiotics that are not in wide-spread systemic use.

In combination, these antibiotics—anti-grampositive gramicidin and anti-gramnegative polymyxin—actually potentiate each other. This important phenomenon results in an enhanced antibiotic action that attacks the wide spectrum of bacteria commonly found in intranasal infections.

'DRILITOL' also contains the effective decongestant, Paredrine† Hydrobromide, and the antihistaminic, thenylpyramine hydrochloride.

for intranasal infections specify:

Drilitol* Solution

or 'Drilitol Spraypak'

Smith, Kline & French Laboratories, Philadelphia

FORMULA: Contains gramicidin, 0.005%; polymyxin B sulfate, 500 U/cc.; thenylpyramine hydrochloride, 0.2%; 'Paredrine' Hydrobromide (hydroxyamphetamine hydrobromide, S.K.F.), 1%. Preserved with thimerosal, 1:100,000.

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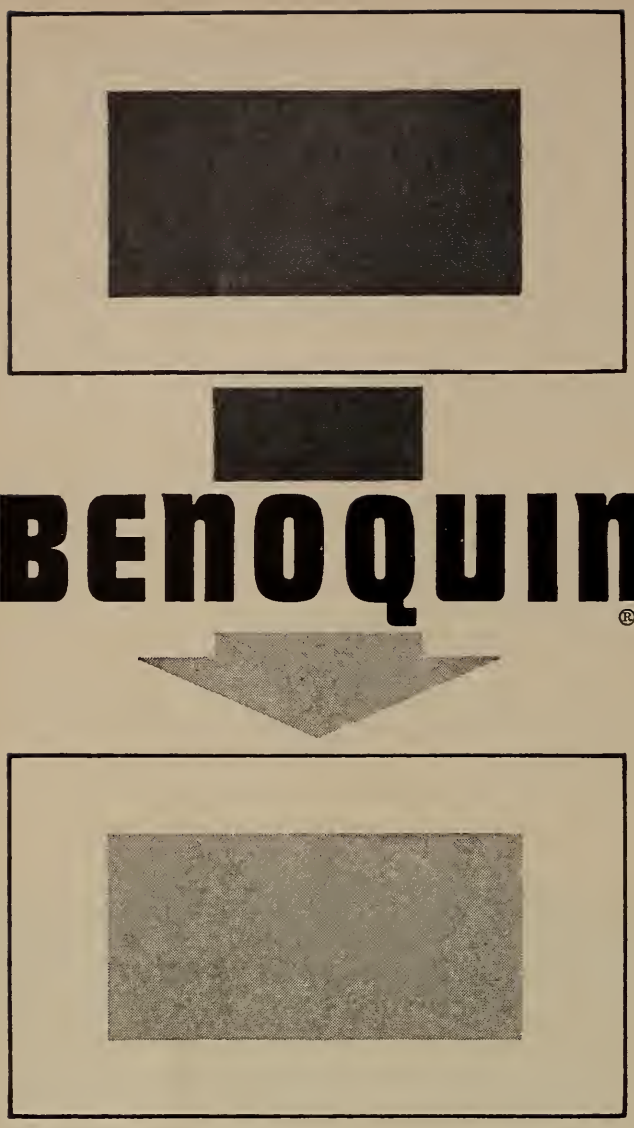

BENOQUIN

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FOR THE TREATMENT OF MELANIN HYPERPIGMENTATION

Ointment BENOQUIN is a new preparation for the treatment of disorders of hyperpigmentation resulting from an increased amount of melanin in the skin. It inhibits melanin formation in human skin. Depigmentation is usually observed after one to four months of continuous treatment . . . generally after the first month.

If erythema or dematitis develops, discontinue the medication. The medication is not effective in hyperpigmentation resulting from pigments other than melanin.

PAUL B. ELDER COMPANY
BRYAN, OHIO

Claims of Trace Elements Aiding in Control Of Brucellosis Unfounded

Claims that the use of trace elements aids in the control of brucellosis have not been verified by controlled studies, according to a report made to the American Medical Association's Council on Foods and Nutrition.

Brucellosis is a contagious disease affecting cattle and is responsible for undulant fever in humans.

Widely circulated assertions that trace elements have a preventive or curative effect on Brucella infections in man and lower animals have been based on uncontrolled observations, and animal experiments at the University of Wisconsin have not supported these assertions, it was stated in the report prepared by David T. Berman, D.V.M., Ph.D., Madison, Wis. Claims that brucellosis is fundamentally a syndrome of trace element deficiency are also unfounded, he added.

"The results of a controlled experiment on cattle indicate that the addition of a trace element supplement to a practical dairy ration had neither a prophylactic nor a therapeutic effect on the course of experimentally produced brucellosis," Dr. Berman said in the report, which appeared in a recent issue of the *Journal of the American Medical Association.*

"The use of products containing trace elements cannot be expected to aid in the control of animal brucellosis. Indeed, their use, to the exclusion of proved effective methods of control based on sanitation and vaccination, may result in seriously undermining basic control and eradication programs.

"Since cases of human brucellosis occur only as a result of direct or indirect contact with the animal reservoirs of the disease, the problem of control of the infection in human beings depends on control and eradication of the disease in the livestock population. Certainly the results of experiments on the natural host of Brucella abortus do not support the claims advanced for the therapeutic efficacy of trace elements in infections of human beings."

In the University of Wisconsin study reported by Dr. Berman, 19 cows were given a trace-element supplemental diet while 22 others were given a regular diet. The cows were then injected with strains of Brucella abortus. Of the 16 pregnant, supplement-fed animals, 12 aborted. Abortion is a common occurrence in brucellosis. Fifteen of the 18 pregnant cows fed a regular diet also aborted. In a group of 14 cows who had been vaccinated against Brucella abortus prior to injection of strains of the disease, only three aborted.

"The results of this controlled study indicate that the supplementation of a practical dairy ration with trace elements, in proportions recommended by the supporters of the efficacy of such products, has neither prophylactic nor therapeutic effect on the course of experimentally produced bovine brucellosis."

The problem of cough control . . .

Cough control involves consideration of two factors, that of suppressing non-productive coughing which may cause irritation and become a secondary cause of intractable coughing, with its by-products of ". . . physical exhaustion, loss of sleep, aggravation of pleuritic pain, and stress incontinence,"[1] and, at the same time, of *not* suppressing cough which clears away excessive secretion. In Phenergan Expectorant with or without codeine you have a time-proved sedative-expectorant prescription, modernized with Phenergan to help achieve the above therapeutic aims.

1. Hillis, B.R.: Lancet 1:1230-35 (June 21) 1952.

FORMULA: Each teaspoonful (5 cc.) contains:

Codeine Phosphate (⅙ gr.)	10.96 mg.	Chloroform	0.25 min.
Phenergan Hydrochloride	5.0 mg.	Citric Acid	66 mg.
Fluidextract Ipecac	0.17 min.	Sodium Citrate	197 mg.
Potassium Guaiacolsulfonate	44 mg.	in a pleasantly flavored syrup base. Alcohol 7%	

P H E N E R G A N ®

Expectorant with Codeine

Promethazine [N-(2'-dimethylamino-2'-methyl) ethyl phenothiazine] Expectorant with Codeine

the sedative-expectorant prescription modernized. 1 pint bottles.

PHENERGAN *Expectorant* PLAIN (without codeine)

Formula identical with the above except for omission of codeine. 1 pint bottles.

Also available: PHENERGAN *Expectorant* Troches with Codeine and PHENERGAN *Expectorant* Troches Plain (without codeine). Jars of 36.

Wyeth ®
Philadelphia 2, Pa.

New Abrasive Method of Treating Skin Defects

A new technique for treating acne scars and other skin defects—through local freezing of the skin and abrasion of the tissue by a revolving wire brush—was described in a recent issue of *Archives of Dermatology and Syphilology*, published by the American Medical Association.

Successful use of the technique on 273 patients was reported by Dr. Abner Kurtin, New York. Most of the patients have been followed for at least two years, and some for as long as four years, without recurrence of the defects, the doctor added.

The procedure consists of first chilling the skin involved by applying a chemical ice pack for 20 minutes. The skin is then cleansed with alcohol. Ethyl chloride, an anesthetic, is sprayed on the area to be abraded, and a current of air directed on the site by means of a mounted blower.

Freezing occurs within a few seconds, making the skin insensitive, bloodless and rigid. Three square inches are frozen at one time and treated individually, as experience has shown that an area this size can be treated adequately before thawing begins, Dr. Kurtin stated.

Planing of the skin is accomplished by means of

(Continued on Page 71)

News Flash! News Flash! News Flash!

Beginning January 24, **WHY, DOCTOR?** moves to a new time. The C.M.A.'s TV program will be seen at **7:30 p.m.** instead of at 8:00 p.m., and every other **Sunday** night thereafter, over **KGO-TV, Channel 7,** San Francisco.

Urge your patients to see:

"Ulcers Away!"	**January 24**	**"Heart"**	**February 21**
"Broken Bones"	**February 7**	**"Anesthesia"**	**March 7**

One of the valuable uses of Thyroid

IN HABITUAL ABORTION[1]

In a series of pregnancies complicated by true habitual abortion, 63.5% were associated with lowered thyroid function.[2] This lowered thyroid function is in contrast to that found in normal pregnancy, in which an early rise in serum protein-bound iodine occurs.[1,3] Thyroid given early enough in pregnancy may diminish the tendency to abortion in cases in which there is no rise of serum protein-bound iodine.

thyrar . . . . . *is of superior uniformity*

thyrar provides whole-gland thyroid medication at its best. Prepared from beef sources exclusively, thyrar undergoes dual standardization—it is chemically assayed and biologically tested. *How Supplied:* Tablets of ½, 1 and 2 grains in bottles of 100 and 1000.

(1) Perlmutter, M.: Metabolism 2: 81, 1953; (2) Jones, G. E. S., and Delfs, E.: J.A.M.A. 146: 1212, 1951; (3) Man, E. B., et al.: J. Clin. Investig. 30: 137, 1951.

For the best in thyroid therapy

thyrar®

THE ARMOUR LABORATORIES

A DIVISION OF ARMOUR AND COMPANY • CHICAGO 11, ILLINOIS

New Abrasive Method of Treating Skin Defects

(Continued from Page 70)

a small brush made of stainless steel wire, each strand of which is slightly curved. The brush is attached through a flexible hand piece and shaft to a mounted motor. The motor rotates 12,000 times a minute and is operated by a foot switch permitting variable speed controls.

Following abrasion, a piece of dry gauze is applied to the area. Dressings are changed daily, and complete healing usually occurs within a week. When more than one treatment is necessary, the procedure can be repeated in four weeks, Dr. Kurtin stated.

In all cases except one, healing occurred without complications; in the one case, the complication was eliminated within a short period, he stated. The healed skin was soft and pliable, and pigmentation returned to normal.

According to Dr. Kurtin, satisfactory treatment has been obtained in cases of acne scars, smallpox and chickenpox scars, superficial malignant tumors of the skin, horny growths such as warts or callouses, tattoos, wrinkles, certain benign tumors of the skin, elevated and depressed scars resulting from injury, burn scars, some moles or birth marks, and skin diseases causing thickened areas of the skin.

THE NEW YORK POLYCLINIC

MEDICAL SCHOOL AND HOSPITAL

(Organized 1881)

(The Pioneer Post-Graduate Medical Institution in America)

Proctology and Gastroenterology

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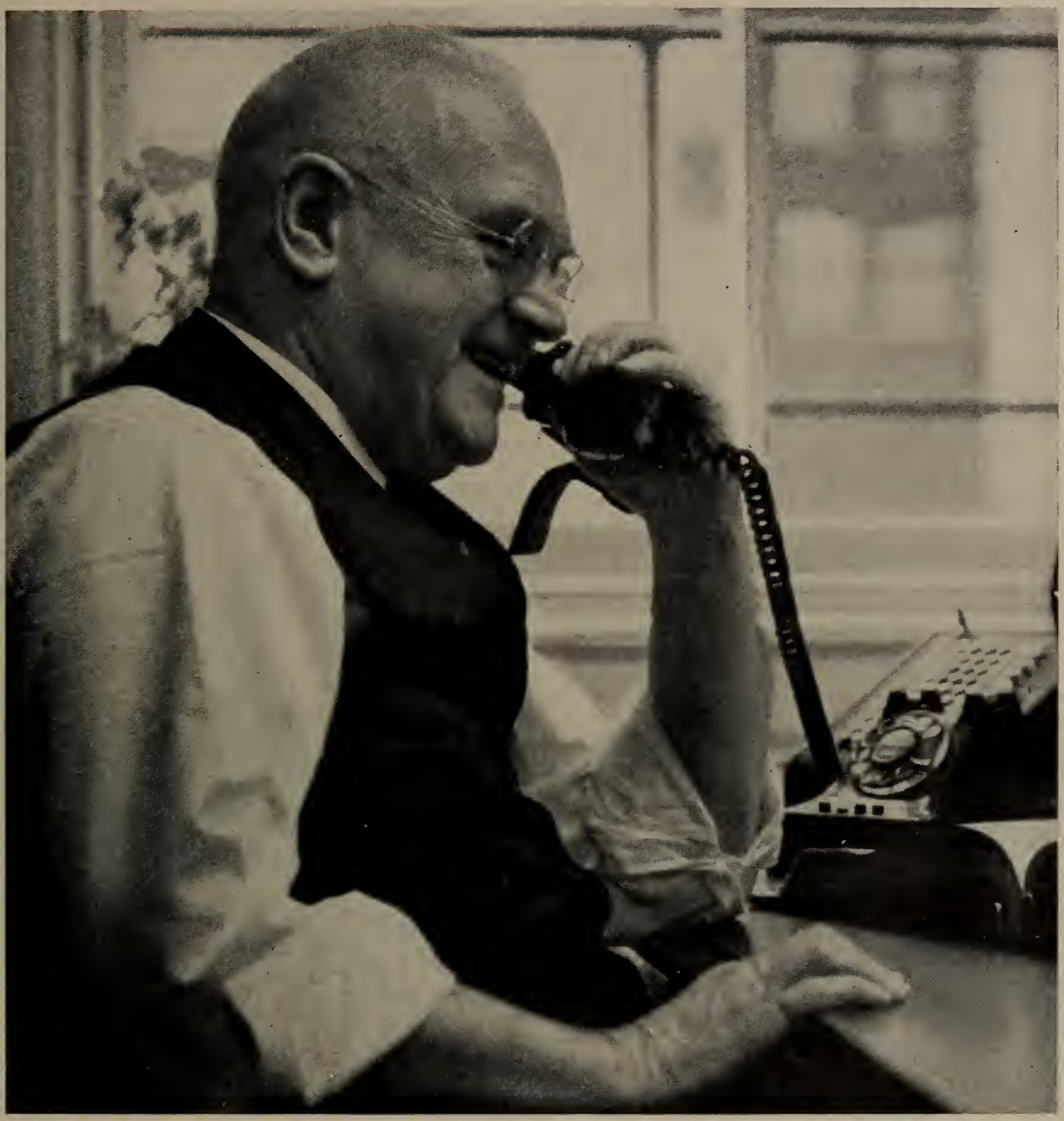

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This "Lady Luck" formula has played a prominent role in many of the great advances of medicine, some of which were recounted by Dr. H. E. Kleinschmidt, Manhasset, N. Y., in a recent issue of *Today's Health* magazine, published by the American Medical Association.

The stethoscope, for instance, was invented in 1816 by a young French physician, René Théophile Hyacinthe Laënnec, after he chanced to observe a group of young boys playing in a lumber pile. One of the boys would tap lightly with his fingertips at one end of a long plank while the others would press their ears to the opposite end and listen to the tapping coming clearly through the board. Laënnec hurried to the hospital, rolled a paper-backed book into a tube, pressed the tube to a patient's chest, and clearly and crisply heard the heart beat.

Chance also played a role in bringing to the medical profession the valuable technique known as "thumping the chest." Leopold Auenbrugger, a Viennese physician, wondered one day if he could obtain different sounds from the human chest by tapping it as his innkeeper father tapped the wine casks to determine how much wine was left in the casks. Dr. Auenbrugger was able to recognize the different characteristic sounds produced by various conditions of the chest.

The invention of the x-ray machine is another valuable diagnostic aid which occurred through astute observation of an incident of chance. The discoverer, Wilhelm Roentgen, was experimenting with a sort of a light bulb, known as Crookes' tube, in a light-proof box when he happened to observe a screen in the room glowing. The screen was made of a sensitive fluorescent substance that glowed when the slightest beam of light struck it. Roentgen could think of no answer for this phenomenon other than that the Crookes' tube gave off rays through the box that caused this to happen. He later found that these rays also would affect a photographic plate and make a shadow picture of the solid objects penetrated.

Ephedrine, a valuable drug used by doctors to shrink the mucous membranes of the air passages when they are swollen and cause stuffiness, is a product of China and "Lady Luck." Used for centuries in China, the drug was brought to the attention of Western medicine by a Chinese laboratory assistant following his visit to an uncle who operated a Chinese apothecary shop. During an animal experimentation in the United States, Dr. Carl F. Schmidt and his Chinese assistant, Dr. Chen, used the drug to

(Continued on Page 96)

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Mental Patient Greatly Improved By Anesthetic Brain Injection

A severely incapacitated mental patient was dramatically improved by the injection of procaine, a local anesthetic, into the white matter of the frontal lobes of his brain, it was reported in a recent issue of the *Journal of the American Medical Association.*

The patient, a 52-year-old man, had been in mental institutions for varying periods for many years prior to the time when the anesthetic treatment was instituted. He suffered from delusions and obsessive fears, according to the article. The last time he was institutionalized his mental condition continued to decline despite psychotherapy, and this radical treatment was begun.

Following the injection, the patient became very confused, but this condition cleared within 24 hours; within 48 hours, marked improvements were noted. Two weeks after the first injection, a second was administered, and his improvement was maintained. The patient was dismissed from the institution a month after the first injection, and has continued free of incapacitation for six months, the report stated.

Nine other patients, all schizophrenics, were treated by injection of procaine, and the response has ranged from "recovered" to "no change," according to the article. Complications from the treatment have been few and short-lasting. In addition, several patients have voiced preference for this type of treatment over electroshock therapy, it was added.

"Injection of various substances into the frontal lobe of the brain has been one of the various methods utilized to treat intractable pain and certain psychiatric disorders since 1936," the article pointed out.

"The ten patients in our series have demonstrated that the injection of procaine is safe, with few complications and with less resultant regressive phenomena than after surgical lobotomy."

The report was made by Drs. J. Martin Myers, Jr., Frank E. Nulsen, Harold Dillon, Calvin S. Drayer, Francis C. Grant, Manuel M. Pearson, and Lauren H. Smith, Philadelphia. They are associated with the Pennsylvania Hospital, department for mental and nervous diseases, and the Hall Mercer Hospital, Pennsylvania Hospital Division.

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–in anemia–

Q. Why is Roncovite* effective in anemias of bone marrow depression due to infection or disease?

A. Because cobalt is the only agent known which, by stimulating erythropoiesis, will cause the hemopoietic system to utilize the iron already available to it.

Q. Why use cobalt in iron-deficiency anemia—isn't iron alone adequate?

A. Roncovite is preferentially indicated in ALL forms of "secondary" or iron-deficiency anemia for the following reasons:

Many so-called iron-deficiency anemias are in reality a combination of an iron-deficiency and an inhibition of hemopoiesis *resulting from long continued extra drain* on the bone marrow.

With iron alone,[1] therefore, a complete clinical response is often difficult or impossible to obtain—only very small gains or poor responses being frequently reported in "low-grade anemias."

Roncovite, by providing the added bone marrow (red cell) stimulant action of cobalt, will supply that added extra "push" to mobilize iron reserves, produce a faster response, greatly superior erythropoiesis and up to fourfold increases in the utilization of iron.[2]

Q. Can I be sure that cobalt is safe for routine use?

A. Cobalt is an essential element with a low order of toxicity—no greater than that of iron. A cobalt chloride dosage of as high as 1200 mg. per day, in divided doses, has produced no severe toxic effects even if continued for six weeks.[3] This is equivalent to a daily dosage of over 80 Roncovite tablets.

Q. Is cobalt cumulative?

A. No—extensive pharmacological investigation proves that cobalt is rapidly and almost completely excreted via the urine[4] so that there is little if any cumulative effect even after periods exceeding 100 days of continuous parenteral use. The body shows no significant amounts of cobalt 48 hours after the last dose.[4]

Q. Is the improvement with Roncovite noticeably rapid?

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1. Cass, L. J.; Frederick, W. S., and DiGregario, S.: Journal-Lancet *51*:73 (1953).
2. Rohn, R. J., and Bond, W. H. Jr.: Lancet *73*:301 (1953).
3. Berk, W., et al: New England J. M. *240*:754 (May) 1949.
4. Berlin, N. I.: J. Biol. Chem. *187*:41 (1950).

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Supplied in bottles of 100 and 1000.

Also available: Armatinic Liquid, bottles of 8 oz. and 16 oz.

"Lady Luck" Formula Aided in Many Medical Advances

(Continued from Page 80)

revive an animal which was dying. Further experiment led to the refinement of this respiratory stimulant.

In bacteriology there are many examples of how the prepared mind takes advantage of accidental happenings, Dr. Kleinschmidt pointed out in the article. A classic example may be drawn from the experience of Louis Pasteur, father of bacteriology. One day while working on chicken cholera, Pasteur accidentally used old cultures of the cholera instead of fresh ones and found that chickens injected with the old cultures became ill but did not die as expected. Upon infection later with virulent cholera germs, they did not even get sick. Further experiments established the principle which now protects us from a number of deadly diseases—vaccination.

Robert Koch, discoverer of the tubercle bacillus, discovered how more clearly to stain bacilli as a result of accidentally leaving a slide containing the bacilli and a dye on a warm stove over night. The next morning, upon looking at the slide, he could see the bacilli more clearly.

A more recent example of how "Lady Luck" and an alert mind have worked together for the benefit of mankind is the story of how Sir Alexander Fleming discovered penicillin. While working on some bacteria cultures he noted they had become "contaminated" with a mold which destroyed the bacteria. Intensive study as to why this occurred led to the discovery that penicillin is an antagonist of many disease germs in the body.

Still another modern-day example is the story of Selman Waksman's discovery of streptomycin. In 1915, while working as an agricultural chemist, he accidentally discovered a fungus that destroyed the tubercle bacillus. It turned out, however, that this fungus was a deadly poison for animals. For 28 years, Waksman and his helpers worked to develop a strain that could be used safely.

"Today most research work is organized," Dr. Kleinschmidt concluded. "A goal is set and each worker is given a specific problem to solve. The day of the spectacular lone eagle is past. Group thinking and experimentation and coordination bring substantial results. The true research worker keeps doggedly to the main road. But he has one ear always cocked to the call of 'Lady Luck,' who may pop out of any unexpected byway."

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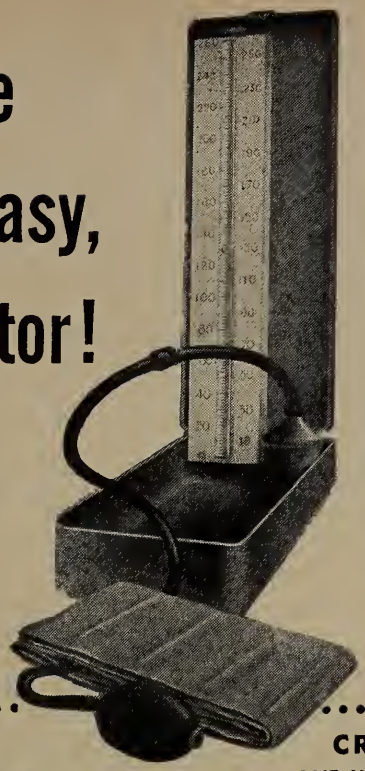

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SEVENTH DISTRICT — Hartzell H. Ray (1955), 23 Baldwin Avenue, San Mateo. Monterey, San Benito, San Mateo, Santa Clara and Santa Cruz Counties. DIamond 3-3641.

EIGHTH DISTRICT — Sidney J. Shipman (1956), 490 Post Street, San Francisco 2. San Francisco County. GArfield 1-2127.

NINTH DISTRICT—Donald D. Lum (1954), 2225 Central Avenue, Alameda. Alameda and Contra Costa Counties. LAkehurst 2-1911.

TENTH DISTRICT—Warren L. Bostick (1955), 1 Hacienda Avenue, Mill Valley. Del Norte, Humboldt, Lake, Marin, Mendocino, Napa, Solano, Sonoma Counties. Glenwood 3-3266.

ELEVENTH DISTRICT—Ralph C. Teall (1956), 2626 L Street, Sacramento 16. Alpine, Amador, Butte, Colusa, Eldorado, Glenn, Lassen, Modoc, Nevada, Placer, Plumas, Sacramento, Shasta, Sierra, Siskiyou, Sutter, Tehama, Trinity, Yolo and Yuba Counties. HUdson 4-1851.

Councilors-at-Large

Arthur E. Varden (1954), 780 E. Gilbert St., San Bernardino. San Bernardino 7224.
Ivan C. Heron (1954), 490 Post Street, San Francisco 2. SUtter 1-4720.
Benjamin Frees (1955), 629 South Westlake Avenue, Los Angeles 57. DUnkirk 8-9561.
Hollis L. Carey (1955), 567 Kentucky Street, Gridley. Gridley 5688.
Arthur A. Kirchner (1956), 2007 Wilshire Blvd., Los Angeles 57. DUnkirk 8-3311.
T. Eric Reynolds (1956), 431 Thirtieth Street, Oakland 9. TWinoaks 3-0422.

Standing Committees

Executive Committee

The President, the President-Elect, the Speaker of the House of Delegates, the Chairman of the Council, the Chairman of the Auditing Committee, the Secretary-Treasurer (ex-officio), and the Editor (ex-officio).

Auditing Committee*

Ivan C. Heron	San Francisco	1954
Donald D. Lum (Chairman)	Alameda	1954
T. Eric Reynolds	Oakland	1954

Committee on Associated Societies and Technical Groups

Hartzell H. Ray	San Mateo	1954
James F. Regan	Los Angeles	1955
H. Gordon MacLean (Chairman)	Oakland	1956

Committee on History and Obituaries

J. Marion Read (Chairman)	San Francisco	1954
John V. Barrow	Los Angeles	1955
J. Roy Jones	Sacramento	1956
Dwight L. Wilbur (Editor)	Ex-officio	
Albert C. Daniels (Secretary)	Ex-officio	
†George H. Kress (Honorary Historian)	Ex-officio	

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Howard C. Miles	Salinas	1955
Karl Schaupp, Jr.	San Francisco	1956

Committee on Industrial Practice

E. Vincent Askey	Los Angeles	1954
Packard Thurber, Sr. (Chairman)	Los Angeles	1955
Harold Downing	Fresno	1956

Committee on Medical Economics

L. H. Fraser (Chairman)	Richmond	1954
Ray Ouer	San Diego	1955
Robert Patrick	Taft	1956

Committee on Medical Education and Medical Institutions

M. Laurence Montgomery	San Francisco	1954
Walter E. Macpherson (Chairman)	Los Angeles	1955
Paul Foster	Los Angeles	1956

Committee on Military Affairs and Civil Defense

Justin J. Stein (Chairman)	Los Angeles	1954
Frank F. Schade	Los Angeles	1955
William L. Bender	San Francisco	1956
John C. Ruddock (Consultant)	Los Angeles	

* Members appointed each year by the Chairman of the Council.
† Deceased.

Committee on Postgraduate Activities

John E. Young	Fresno	1954
Herbert W. Jenkins	Sacramento	1955
Edward C. Rosenow (Chairman)	Pasadena	1956

Committee on Public Policy and Legislation

Dan O. Kilroy	Sacramento	1954
James C. Doyle	Beverly Hills	1955
Dwight H. Murray (Chairman)	Napa	1956
John W. Green (President)	Ex-officio	
Arlo A. Morrison (President-Elect)	Ex-officio	

Legislative Advisory Committee

G. Glenn Curtis	Brea
J. Lafe Ludwig	Los Angeles
Frank A. MacDonald	Sacramento
H. R. Madeley	Vallejo
Wilson Stegeman	Santa Rosa

Committee on Scientific Work

Howard F. West	Los Angeles	1954
George H. Houck	Palo Alto	1955
Robert L. Dennis	San Jose	1956
Albert C. Daniels (Chairman)	Ex-officio	
Edgar Wayburn (Secretary on Medicine)	Ex-officio	1954
William Brock (Secretary on Surgery)	Ex-officio	1954

Committee on Public Relations

The Committee on Public Relations consists of the chairmen of the following standing committees and certain general officers of the Association, all serving ex-officio.

Dwight H. Murray....Chairman, Com. on Public Policy and Legislation
L. H. Fraser....Chairman, Committee on Medical Economics
H. Gordon MacLean, Chairman, Committee on Associated Societies and Technical Groups
John W. Green....President
Arlo A. Morrison....President-Elect
J. Lafe Ludwig....Los Angeles
Frank A. MacDonald....Sacramento

Cancer Commission

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David A. Wood (Vice-Chairman)	San Francisco	1954
Paul Michael	Oakland	1954
Ian G. Macdonald (Chairman)	Los Angeles	1955
L. Henry Garland (Secretary)	San Francisco	1955
Justin J. Stein	Los Angeles	1955
Robert A. Scarborough	San Francisco	1956
Erle Henriksen	Los Angeles	1956
Albert C. Daniels	San Francisco	1956

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Med. Times *81*:266 (Apr.) 1953.

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ROSTER OF COUNTY MEDICAL SOCIETIES, CALIFORNIA MEDICAL ASSOCIATION

(County society secretaries are requested to notify California Medicine promptly when changes are indicated in their roster information.)

Alameda-Contra Costa Medical Assn., 6230 Claremont Avenue, Oakland 18. Meets Third Monday, 8:15 p.m., Hunter Hall, Oakland.
Pres., James B. Graeser, 298 Grand Ave., Oakland.
Secy., Bernard B. Gadwood, 2815 MacDonald Ave., Richmond.

Butte-Glenn Medical Society. Meets Fourth Thursday.
Pres., Thomas Elmendorf, Masonic Bldg., Willows.
Secy., Karl J. Chiapella, 184 E. 5th St., Chico.

Fresno County Medical Society, 616 Security Bank Building, Fresno. Meets Second Tuesday, 6:30 p.m., Sunnyside Country Club.
Pres., Fred E. Cooley, 4313 E. Tulare St., Fresno.
Secy., J. Cooper Collins, 2920 Fresno St., Fresno.

Humboldt County Medical Society. Meets First Thursday.
Pres., Clarence Crane, Jr., 492 Main St., Ferndale.
Secy., Ted W. Loring, 715 I St., Eureka.

Imperial County Medical Society. Meets Second Tuesday, 8 p.m., Pioneer Memorial Hospital, Brawley.
Pres., Sidney M. Tepper, 136 N. 5th St., El Centro.
Secy., Ernest Brock, 200 S. Imperial Ave., Imperial.

Inyo-Mono County Medical Society. Meets Fourth Tuesday except December, January, February.
Pres., Victor H. Hough, Lone Pine.
Secy., Robert W. Denton, 611 W. Line, Bishop.

Kern County Medical Society, 1300 Chester Avenue, Bakersfield. Meets Third Tuesday, 7:30 p.m., Stockdale Country Club except June, July, August.
Pres., L. N. Osell, 2011 18th St., Bakersfield.
Secy., R. W. Burnett, 515 Truxtun Ave., Bakersfield.

Kings County Medical Society. Meets Second Monday, 8:00 p.m., Legion Hall, Hanford.
Pres., Lloyd Christensen, Van Sicklen Bldg., Hanford.
Secy., N. F. Sorensen, Van Sicklen Bldg., Hanford.

***Lassen-Plumas-Madoc** County Medical Society. Meets on call.
Pres., Robert A. Greenman, Chester.
Secy., Roy M. Peters, Portola.

Los Angeles County Medical Assn., 1925 Wilshire Blvd., Los Angeles 57. Meets First and Third Thursdays, 1925 Wilshire Blvd., Los Angeles.
Pres., J. Philip Sampson, 2200 Santa Monica Blvd., Santa Monica.
Secy., Ewing L. Turner, 1930 Wilshire Blvd., Los Angeles 57.

Madera County Medical Society.
Pres., Omar U. Need, 117 S. B St., Madera.
Secy., Gordon C. Hall, 501 E. Yosemite, Madera.

Marin County Medical Society. Meets Meadow Club of Tamalpais, Fourth Thursday of every month, 7:00 p.m.
Pres., Leo L. Stanley, 1322 5th Ave., San Rafael.
Secy., Wm. Burgett Smith, 711 D St., San Rafael.

Mendocino-Lake County Medical Society.
Pres., Olga A. Miller, Box X, Talmage.
Secy., Martin S. Barnes, 615 Main, Fort Bragg.

***Merced** County Medical Society. Meets Fourth Thursday, Hotel Tioga, Merced.
Pres., Edwin M. Soderstrom, Merced Clinic, Merced.
Secy., John East, 652-20th St., Merced.

Monterey County Medical Society. Meets First Thursday.
Pres., A. C. Mitchell, 576 Hartnell, Monterey.
Secy., Clyn Smith, Jr., Cass and Carmelita, Monterey.

Napa County Medical Society. Meets Second Wednesday.
Pres., Harold E. James, Sanitarium, Calif.
Secy., Merle F. Godfrey, 1519 Jefferson, Napa.

Orange County Medical Association, 1226 N. Broadway, Santa Ana. Meets First Tuesday, 7:00 p.m.
Pres., A. Norton Donaldson, 1330 N. Main St., Santa Ana.
Secy., Chad M. Harwood, 1202 N. Broadway, Santa Ana.

Placer-Nevada-Sierra County Medical Society. Meets every second Wednesday of each month.
Pres., John R. Topic, 1166 High St., Auburn.
Secy., T. J. Rossitto, 1166 High St., Auburn.

Riverside County Medical Association. Meets Second Monday, 8:00 p.m., El Loro Room, Mission Inn.
Pres., Fred D. Lord, 4060 Orange St., Riverside.
Secy., John S. O'Toole, 3616 Main St., Riverside.

Sacramento Society for Medical Improvement, 2731 Capitol Ave., Sacramento. Meets Third Tuesday, 8:30 p.m., Sutter Hospital Auditorium.
Pres., A. E. Berman, M.D., 2901 Capitol Ave., Sacramento.
Secy., Frank G. Schiro, M.D., 815 30th St., Sacramento.

San Benito County Medical Society. Meets First Thursday, Hazel Hawkins Memorial Hospital, Hollister.
Pres. E. C. Sheldon, M.D., 956 San Benito St., Hollister.
Secy., Peter Jones, M.D., Bank of America Bldg., Hollister.

San Bernardino County Medical Society. Meets First Tuesday, 8:00 p.m., San Bernardino County Charity Hospital.
Pres., Leonard M. Taylor, 3549 Valencia Ave., San Bernardino.
Secy., Carl M. Hadley, 315 Platt Bldg., San Bernardino.

San Diego County Medical Society, 101 Medical-Dental Bldg., San Diego 1. Meets Second Tuesday, Manor Hotel.
Pres., Howard A. Ball, 307 Medico-Dental Bldg., 233 A St., San Diego 1.
Secy., Maurice J. Brown, 2001 Fourth Ave., San Diego 1.

San Francisco Medical Society, 2180 Washington St., San Francisco 9. Meets Second Tuesday, 8:15 p.m., 2180 Washington St., San Francisco 9.
Pres., Samuel R. Sherman, 2107 Van Ness Ave., San Francisco.
Secy., Matthew N. Hosmer, 384 Post St., San Francisco.

San Joaquin County Medical Society. Meets First Thursday, 8:15 p.m., American Trust Bldg., Stockton.
Pres., James Baker, 845 N. California St., Stockton 3.
Secy., F. A. McGuire, 307 Medico-Dental Bldg., Stockton.

San Luis Obispo County Medical Society. Meets Third Saturday, 7:00 p.m., Golden Dragon Cafe, San Luis Obispo.
Pres., Ernest Werbel, 1170 Marsh St., San Luis Obispo.
Secy., Tibor Beresky, 1304 Garden St., San Luis Obispo.

San Mateo County Medical Society, 235 Third Ave., San Mateo. Meets Third Tuesday of each month.
Pres., Bradley C. Brownson, 23 Baldwin Ave., San Mateo.
Secy., Norman C. Fox, 512 Jenevein Ave., San Bruno.

Santa Barbara County Medical Society, 300 West Pueblo St., Santa Barbara. Meets Second Monday, Cottage Hospital.
Pres., Laurence E. Heiges, 202 E. Cypress, Lompoc.
Secy., Arthur E. Wentz, 300 W. Pueblo, Santa Barbara.

Santa Clara County Medical Society, 1024 The Alameda, San Jose 26. Meets Third Monday of every month.
Pres., Burt L. Davis, 261 Hamilton Ave., Palo Alto.
Secy., Dan Brodovsky, St. Claire Bldg., San Jose.

Santa Cruz County Medical Society. Meets every Second month, Second Tuesday. Time, place to be announced.
Pres., D. S. Sedgwick, Capitola.
Secy., Samuel B. Randall, 230 Walnut Ave., Santa Cruz.

Shasta County Medical Society. Meets First Monday.
Pres., H. Harper Thorpe, 1529 Market St., Redding.
Secy., Roy W. Thomas, 1555 Court St., Redding.

Siskiyou County Medical Society. Meets Sunday on call.
Pres., Albert A. Newton, 807 S. Main, Yreka.
Secy., Victor J. Thompson, Weed Hospital, Weed.

Solano County Medical Society. Meets Second Tuesday, 8:00 p.m., Casa de Vallejo Hotel, Vallejo.
Pres., Herbert L. Joseph, 607 Carolina, Vallejo.
Secy., Robert L. Garrett, 327 Georgia, Vallejo.

Sonoma County Medical Society, 300 American Trust Bldg., Santa Rosa. Meets Second Thursday.
Pres., William J. Rudee, 1049 Fourth St., Santa Rosa.
Secy., Frank E. Lones, 300 American Trust Bldg., Santa Rosa.

***Stanislaus** County Medical Society. Meets Third Thursday, 7 p.m., Hotel Hughson, Modesto.
Pres., Robert Barker, 814-14th St., Modesto.
Secy., J. Lyle Spelmann, 140 McHenry Ave., Modesto.

Tehama County Medical Society. Meets at call of President.
Pres., O. T. Wood, Red Bluff.
Secy., J. W. Ingle, Corning.

Tulare County Medical Society.
Pres., Vincent M. Dungan, 217 S. Willis St., Visalia.
Secy., James J. McNearney, 140 N. M St., Tulare.

Ventura County Medical Society. Meets Second Tuesday, 7:15 p.m., Colonial House, Oxnard.
Pres., James H. Nelson, 326 Topa Topa Dr., Ojai.
Secy., Franklin K. Helbling, 34 N. Ash St., Ventura.

Yolo County Medical Society. Meets First Wednesday.
Pres., John A. Saltsman, 312 Elizabeth St., Vacaville.
Secy., William T. Robinson, Woodland Clinic, Woodland.

Yuba-Sutter-Colusa County Medical Society. Meets Second Tuesday.
Pres., Paul C. Cress, 605 4th St., Marysville.
Secy., Robert I. Hodgin, 729 D St., Marysville.

*1953 officers.

(For roster of C.M.A. committees and other organizations, see last month's issue.)

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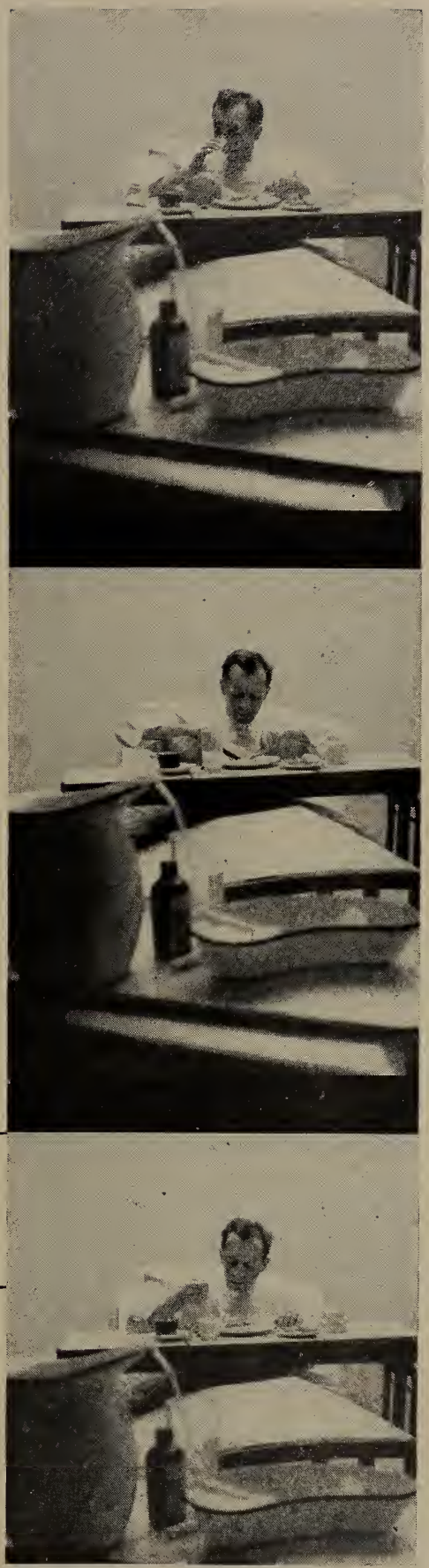

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Warning on Complications from Use of Efocaine

Efocaine, a widely-acclaimed local anesthetic, may produce serious nerve and muscle tissue complications, according to four reports in publications of the American Medical Association.

One article, appearing in the *Journal of the American Medical Association*, stated that animal studies showed the "recently introduced and apparently prematurely acclaimed preparation known as Efocaine" caused "destruction of both muscle and nerve tissues." This article was prepared by Drs. Walter Mannheimer, Philip Pizzolato and John Adriani, New Orleans. They are associated with the Veterans Administration Hospital and the department of surgery, school of medicine, Louisiana State University.

Three of the articles appeared in the A.M.A. *Archives of Surgery*. One, describing the effect of the drug on animals, stated that "a severe destructive effect of Efocaine on rabbit tissues was demonstrated with doses equivalent to doses in man." The major noxious substance in Efocaine is propylene glycol, which comprises 78 per cent of the solvent vehicle for the anesthetic, it added.

The second article described human complications from the drug, which has been advocated for inducing intercostal blocks to control pain and prevent pulmonary complications in patients having chest and upper abdominal surgery.

"Although subjective relief of pain was noted with the use of Efocaine, a significant decrease in postoperative complications and in requirements for narcotics was not observed," this article pointed out. "Complications, namely neuritis, inflammatory reactions and lasting absence of nerve function, resulted from the clinical use of this drug.

"Efocaine does not fulfill the requirement for a local anesthetic agent producing anesthesia of long duration without toxic effect."

The third article in the *Archives of Surgery* reported on eight cases of spinal cord involvement associated with the use of Efocaine, including complete paralysis and destruction of the spinal cord from the level of the injection downward. Injection of the drug, according to the authors of the article, was made close to but outside of the spinal cord. The fluid, however, apparently traveled up the nerves into the spinal cord.

Two of the *Archives of Surgery* articles were written by Drs. George Margolis, Helen E. Hall and William K. Nowill. The third was prepared by Drs. Nowill, Hall and C. Ronald Stephen. All are associated with the department of pathology and the division of anesthesiology, Duke University School of Medicine and Hospital, Durham, N. C.

Storage of Pooled Blood Plasma Eliminates Disease Risk

Storage of pooled blood plasma in liquid form at room temperature for at least six months will eliminate most of the risk of homologous serum jaundice, it was reported in a recent issue of the *Journal of the American Medical Association*. Homologous serum jaundice is a form of jaundice which results from the injection of virus-contaminated human blood products.

Such storage appears to eradicate the virus from the plasma, which may be stored for 30 months without clinically significant alteration, the authors stated.

They based their conclusions on an 11-year study at the University of Chicago Clinics. A total of 11,970 patients were observed for at least six months after their last transfusion. The pooled plasma employed was stored in liquid form at room temperature for at least six months before use; none was taken from donors with a history of jaundice or hepatitis.

"No homologous serum jaundice occurred in the group of patients receiving only the liquid pooled plasma stored at room temperature," the authors wrote. "During the same period, 44 cases of homologous serum jaundice developed in the groups receiving whole blood alone or blood in combination with the plasma stored at room temperature.

"Chemical studies of liquid pooled plasma show no clinically significant alteration after room temperature storage for 30 months. Clinical studies reveal this plasma to be as useful in the prevention or treatment of shock or hypoproteinemia as freshly prepared liquid or dried plasma.

"After six to nine months of room temperature storage, when its virus activity has died out, liquid plasma can be lyophilized if desired. While storage of liquid pooled plasma for six months at room temperature provides a safe, simple and inexpensive means for the preparation of plasma, this procedure is not adaptable to whole blood."

At the present time, pooled plasma usually is dried, frozen or refrigerated. In these processes, the viruses of contaminated blood are preserved indefinitely, according to the authors. As a result, homologous serum jaundice develops in from 5 to 22 per cent of the recipients receiving transfusion, they added.

The report was made by Drs. J. Garrott Allen, Daniel M. Enerson and E. S. G. Barron, and Carolyn Sykes, R.N., Chicago. All are associated with the department of surgery, University of Chicago.

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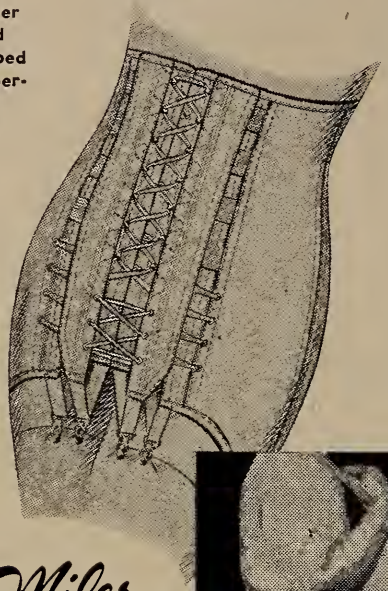

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What the President Said on Medical and Health Issues

Following are excerpts from President Eisenhower's State of the Union message. They are points of interest to the medical profession.

Socialization of Medicine: "I am flatly opposed to the socialization of medicine. The great need . . . can best be met by the initiative of private plans. But it is unfortunately a fact that medical costs are rising and already impose severe hardships on many families. The federal government can do many things and still avoid the socialization of medicine."

Research: "The federal government should encourage medical research in its battle with such diseases as cancer and heart ailments, and should continue to help states in health and rehabilitation."

Hill-Burton Program: "The present . . . act should be broadened to assist in the development of adequate facilities for the chronically ill . . . of diagnostic centers, rehabilitation facilities and nursing homes."

Reinsurance of Health Plans: "The war on disease . . . needs a better working relationship between government and private initiative. . . . A limited government reinsurance service would permit the private and non-profit insurance companies to offer broader protection to more of the many families which want and should have it."

Rehabilitation: "The program for rehabilitation of the disabled especially needs strengthening. . . . This program presently returns each year some 60,000 handicapped individuals to productive work. Far more disabled people can be saved each year . . . if this program is gradually increased."

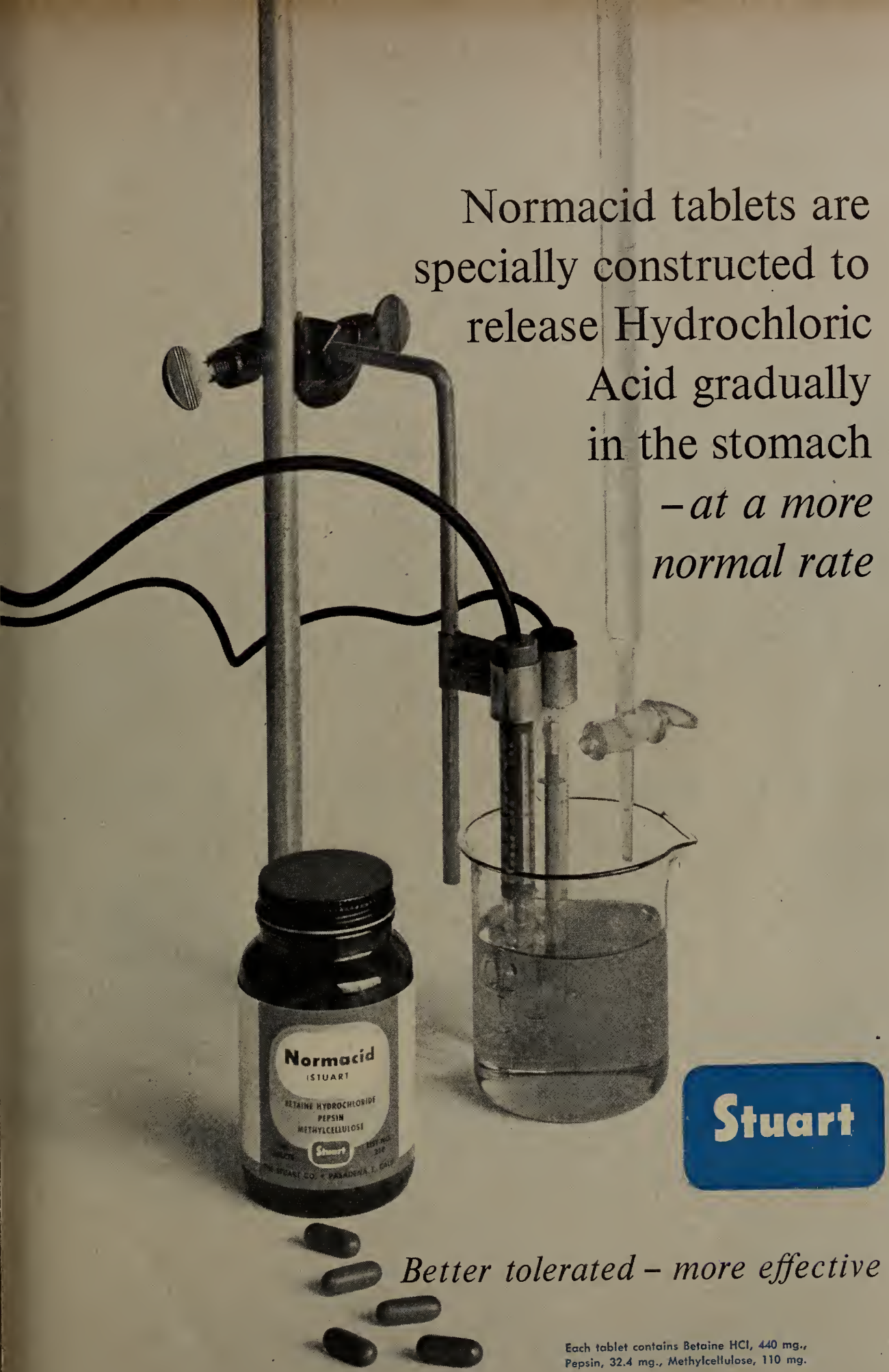
Military Dependents: "Pay alone will not retain in the career service . . . the necessary numbers of long-term personnel. I strongly urge, therefore, a more generous use of other benefits important to service morale. Among these are more adequate living quarters, and medical care for dependents."

Medical Tax Deductions: " . . . we propose more liberal tax treatment for dependent children who work, for widows or widowers with dependent children, and for medical expenses."

Veterans: "The internal reorganization of the Veterans Administration is proceeding with my full approval. When completed, it will afford a single agency whose services, including medical facilities, will be better adapted to the needs of those 20 million veterans to whom the nation owes so much." (There was no further reference to VA in the address.)

Social Security: "I ask that this extension (to 10 million more persons) soon be accomplished. This and other major improvements . . . will bring substantial benefit increases and broaden the membership of the insurance system, thus diminishing the need for federal grants-in-aid . . ."

—A.M.A. Washington Letter



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Why Many Doctors Don't Read Their Mail

Now I know why many doctors don't read their mail. The *New England Medical Journal* recently reported one doctor who received, from May 1, 1952, to April 30, 1953, a total of 3,305 pieces of direct mail advertising, with 2,883 pieces coming from pharmaceutical manufacturers. Products used in the treatment of cardiovascular disease headed the long list. Antibiotics and sulfonamides came next.

—*The A.M.A. Secretary's Letter*

High Altitude Flying May Cause Splenic Damage in Negroes

Negroes with sickle cell trait, a tendency toward the deformity of red blood cells, may be subject to a serious condition of the spleen as a result of high altitude flying, in the opinion of Capt. Jack C. Cooley, Capt. Wesley L. Peterson, Lieut. Charles E. Engel and Lieut. Col. James P. Jernigan (MC), U. S. Air Force.

The medical officers reached this conclusion following a study of six Negro military patients who

(Continued on Page 26)

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†Kimble, S.T., and Stieglitz, E.J.: Geriatrics 7: 20, 1952.

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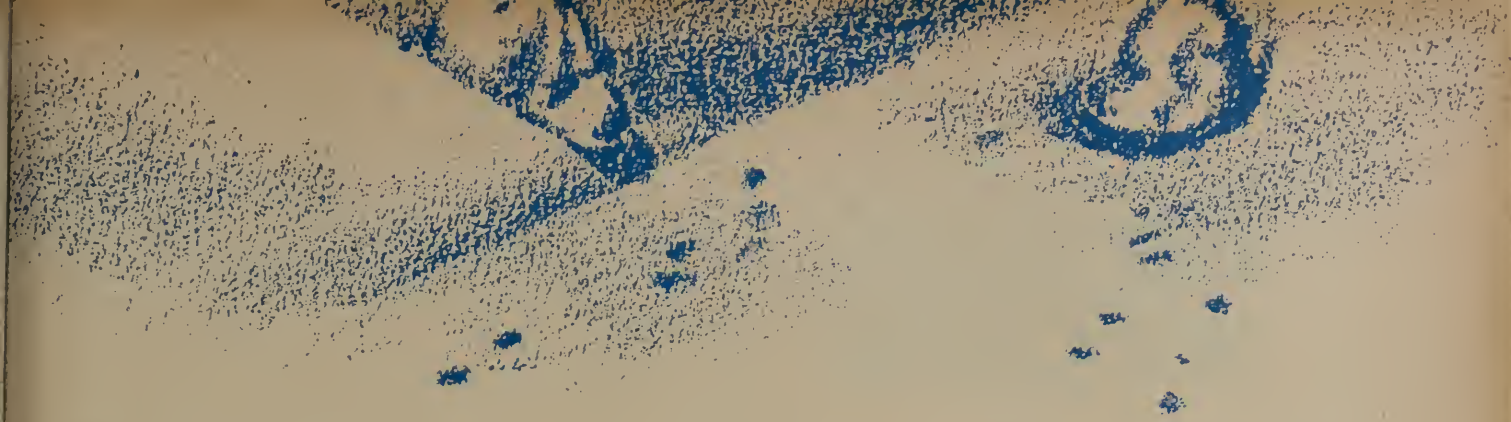

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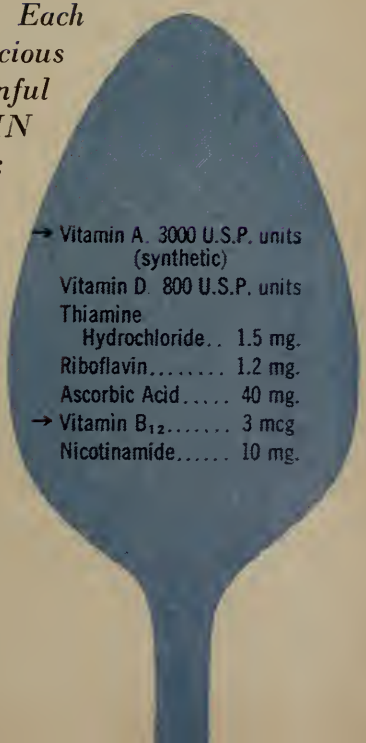

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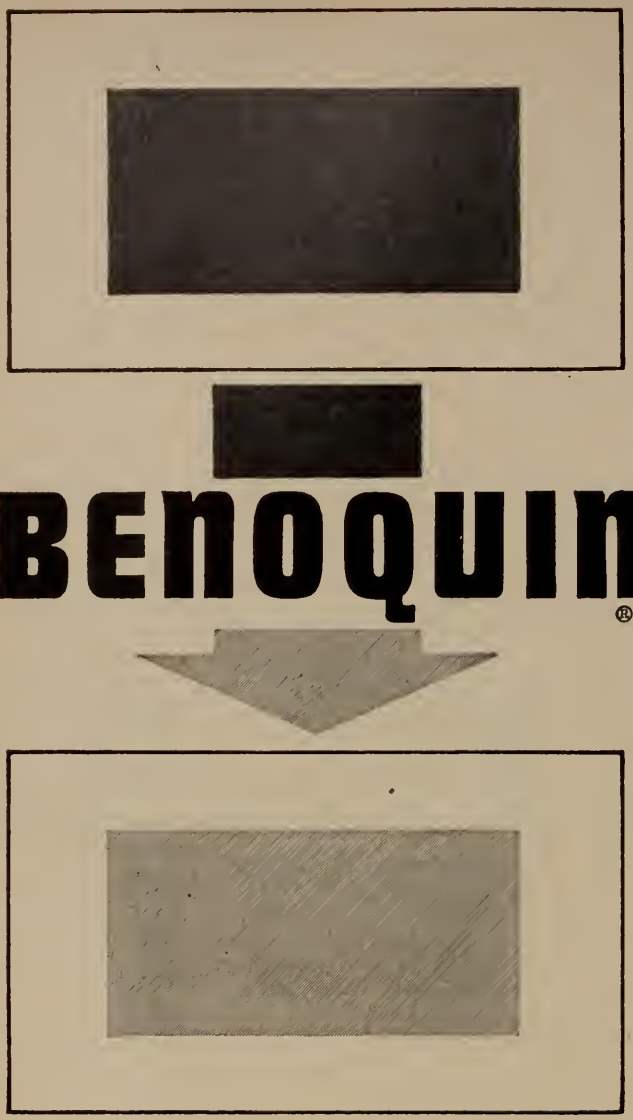

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Scientific Program for Doctors on Hawaiian Trip

The Hawaiian Medical Association has announced a scientific program for physicians who will take part in the American Medical Association's 13-day Hawaiian Holiday Tour which will follow the annual A.M.A. convention in San Francisco next June 21-25.

The party will leave San Francisco aboard Pan American Airways Strato Clippers and United Air Lines Stratocruisers at 11:45 on the night of Friday, June 25—the closing day of the convention—and arrive in Honolulu early the next morning. The party will stay at the Royal Hawaiian Hotel on Waikiki Beach.

The return trip, scheduled at 4 p.m. on July 3, will be made on the luxurious Matson liner, *SS. Lurline*, which will dock in Los Angeles on July 8.

All of the reservations are being handled for the A.M.A. by William M. Moloney, general agent, Room 711, 105 West Adams Street, Chicago.

According to Dr. Walter B. Quisenberry of the Department of Health of the Islands, the Hawaiian Medical Association has arranged for the setting up of an information desk in the lobby of the Royal Hawaiian hotel to handle mail and telephone calls upon the guests' arrival. The desk will be maintained in the lobby throughout their stay.

The scientific program will be held in the Mabel Smyth auditorium from 8:30 a.m. to 10 a.m. on Monday, June 28. This program will be handled by a panel made up of surgeons and internists, who will be in the visiting party, as well as by recognized specialists practicing on the Islands. Audience participation will be encouraged.

The afternoon and evening of June 28 and the morning of June 29 will be free.

Between 2:30 p.m. and 5 p.m. on Tuesday, June 29, the society has planned a local scientific presentation at the Royal Hawaiian Hotel.

There will be a short address of welcome by Dr. Edwin K. Chung-Hoon, president of the Hawaii Association. He also will give a pictorial review of leprosy and will be followed by Dr. Nils P. Larsen, whose subject will be "Medicine in Early Hawaii." Dr. Paul Gebauer has worked up a humorous movie entitled "Techniques of Surgery," which he will show to the visitors. A social hour, dinner and entertainment will follow at the Niumalu Hotel. The evening will close with dancing until midnight.

Dr. Quisenberry stated that the remainder of the time, beginning June 30 and ending July 3, will be free for the doctors and their wives to visit the other islands or enjoy the beach.

"This will give the doctors time," he said, "to browse through orchid nurseries, watch Japanese archery, look into the crater of a live volcano, drive through jungles where the ferns grow 30 feet high, and enjoy some of the water sports for which Honolulu is famous."

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THE UPJOHN COMPANY, KALAMAZOO, MICHIGAN

High Altitude Flying May Cause Splenic Damage in Negroes

(Continued from Page 20)

suffered splenic enlargement and functional failure following high altitude flying in unpressurized aircraft.

The patients, ranging in age from 18 to 23 years, all felt well before boarding the aircraft, the authors reported in a recent issue of the *Journal of the American Medical Association*. Within one-half to four hours after take-off, all became nauseated. This was followed by frequent vomiting and the occurrence of a dull ache to sharp pains in the upper left part of the abdomen; in each case the pain became progressively worse.

On admission to a hospital, the patients' temperature rose, and they experienced lack of appetite, sweating, abdominal distention and increased pain. All the patients were operated upon and their spleens removed. They recovered completely.

"Our six cases support previous views that a possible hazard exists for the Negro with the sickle cell trait in airplane flight," the authors said. "Although

(Continued on Page 42)

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DOSAGE: Prescribe Bentyl, 2 capsules or 2 teaspoonfuls Bentyl Syrup three times daily and at bedtime. Infants and Children, ½ to 1 teaspoonful Syrup 10 to 15 minutes before feeding. Three times daily.

1. McHardy and Browne: Sou. M.J. 45:1139, 1952.

2. Lorber and Shay: Fed. Proc. 12:90, 1953.

Complete Bentyl bibliography on request.

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Administration Proposes Reinsurance Corp. To Underwrite Catastrophic Coverage

The Eisenhower administration has asked Congress to establish a federal corporation which would reinsure voluntary health insurance plans, making it possible for them to extend their coverage and protect against the cost of catastrophic illness. In some respects it is similar to the Federal Deposit Insurance Corporation for bank deposits.

In his State of the Union message delivered to Congress Mr. Eisenhower briefly sketched what he had in mind. Subsequent inquiries on Capitol Hill established the basic outline of the plan. The heart of the program will be a corporation set up with a federal appropriation for its original working capital. Once under way its operations would be supported by payments from the member health insurance organizations of a percentage of their gross income from premiums. According to the congressional sources, the reinsurance corporation device follows the general lines of the 1950 Wolverton bill. Mr. Wolverton was then a minority member of the House Interstate and Foreign Commerce Committee which must handle such legislation. Now he is chairman and in a position to effectively push his idea. The Eisenhower plan is understood to include the following three major objectives of the Wolverton bill:

1. Make it possible for health insurance plans to offer catastrophic or comprehensive coverage by having the federal corporation pay one-third or three-fourths of each survivor's claim in excess of $500 or $1,000.

2. Make it possible for—or even require—the plans to offer coverage to individual subscribers.

3. Require all participating plans to scale the cost of premiums in relation to family income. Families at the $5,000 or $6,000 level would pay the maximum, with those earning less paying less.

Other points: Participating groups would pay about 2 per cent of gross premiums collected to support federal corporation. . . . A limit would be placed on out-state subscribers . . . also a limit on over-the-schedule payments to physicians or hospitals. . . . Benefits would have to be clearly defined and meet standards set by the corporation. . . . Patients would have to be allowed free selection among participating hospitals and physicians. . . . Every licensed physician would be eligible to participate. . . . The Wolverton plan excludes commercial companies but the present administration program would admit them.

—A.M.A. Washington Letter

Drinking and Important Activities Don't Mix

If you have something important to do, don't drink beforehand.

The greatest danger from the use of alcoholic beverages concerns the relationship of drinking to subsequent actions, a medical consultant wrote recently in the *Journal of the American Medical Association*, stating:

"For example, the after-dinner drinks may be perfectly harmless if no important activities are undertaken at such times, whereas the drink taken before driving a car, running machinery, or performing any task that demands accurate decisions or mental acuity might be dangerous. The drinker should observe the following rule: For every two drinks, he should wait three hours before undertaking important activities."

Contrary to popular opinion, the mixing of alcoholic drinks does not increase the intoxicating effects of alcohol, since these symptoms depend on the actual amount of alcohol consumed and other factors, he stated. However, this old wives' tale concerning the mixing of beverages may be of value, since promiscuous sampling is likely to lead to greater consumption of alcohol, just as a great variety of foods may lead to overeating, he said.

Concerning the amount of alcohol that can be tolerated by an individual, the consultant pointed out that the effect depends largely on one factor—the amount of alcohol that accumulates in the blood.

"The amount that accumulates depends on the amount ingested, the size of the person, the concentration of alcohol in the beverage, the presence of food in the stomach, the rate of oxidation and the elimination of the alcohol, and, particularly, on the rate of drinking," according to the consultant.

"The average person can oxidize and eliminate about six to ten cc. of pure alcohol per hour, so that he could consume about a pint (500 cc. of 100 proof whiskey in 24 hours without ever being intoxicated if he spaced his drinks properly. On the other hand, a single drink consumed rapidly on an empty stomach may produce measurable symptoms of intoxication.

"A convenient guide for comparison of the amount of alcohol in beverages is that one ounce (30 cc.) of 100 proof whiskey contains about as much alcohol as three ounces (90 cc.) of wine (17 per cent by volume) or 12 ounces (360 cc.) of beer (4 per cent by volume)."

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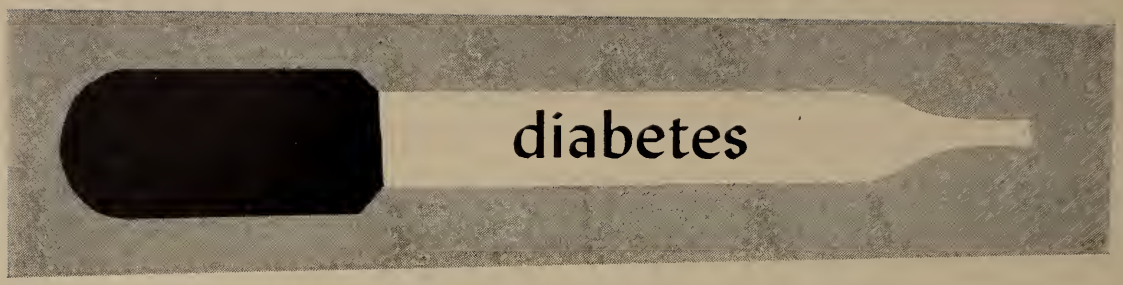

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Only 19% of the diabetics in this survey were detected by findings other than glycosuria. "Every patient therefore, should have at least one urinalysis as part of his examination, even if the purpose of his visit is only the removal of wax from the ears."[2]

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*Data from nationwide poll: Diabetes in daily practice

70% were over 40.
40% had a family history of diabetes.
65% were overweight.

1. Blotner, H., and Marble, A.: New England J. Med. *245*:567 (Oct. 11) 1951.
2. Steine, L.: GP *8*:45 (July) 1953.

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1. Thompson, M. R., and Thompson, R. E., The Pharmacology and Chemistry of Veratrum Viride, A. Ph. A. Meeting, August 20, 1953.

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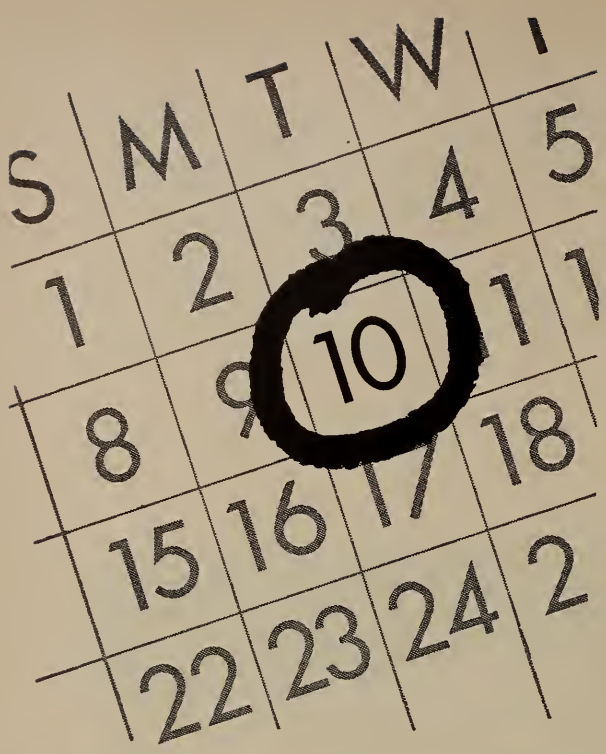

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Cardiovascular Diseases in Women May Not Be Influenced by Obesity

The development of high blood pressure and coronary diseases in women may not be influenced by obesity as it is in men, a study of 1,000 persons by three New York heart specialists disclosed.

The reason for this possible difference between the sexes is not obvious, the doctors wrote in a recent issue of the *Journal of the American Medical Association.*

"It is apparent that hypertension is found more commonly in obese men than in those who are of average weight or who are underweight, but the exact relationship between hypertension and obesity remains obscure," the doctors pointed out. "There is no definite evidence that the obesity is causally related to hypertension. It may be that the factors resulting in hypertension also produce obesity, e.g., emotional influences, faulty metabolism or a hormone disturbance.

"It is questionable that obesity is ever the sole factor in the development of hypertension, for it is quite common to find a normal blood pressure in the presence of excessive obesity. There is no doubt, however, that overweight is detrimental when the blood pressure is already elevated and that improvement usually follows a loss of weight."

The doctors' study disclosed that the percentage of overweight male patients suffering from coronary occlusion, angina pectoris, coronary insufficiency and hypertension was significantly higher than the percentage of overweight men in the general population, which was used as a control group for comparative purposes.

Among the overweight women studied, there was little difference in the frequency of cardiac conditions or high blood pressure between the patients and the controls, the doctors stated. In fact, in the group suffering from angina pectoris, the proportion of obese women with the disease was even less than in the control group.

Discussing the relationship of obesity to coronary disease, the doctors said that "in patients who are overweight, the mortality rate is twice that of average or undeweight patients." Obesity increases the basic work of the heart and thus places a strain on it.

"In cardiac disease, obesity predisposes the patient to anginal pain and congestive failures," according to the doctors. "It has been shown that obesity increases oxygen consumption, cardiac rate, blood pressure and cardiac work. It reduces work tolerance, cardiac reserve, and vital capacity after exercise.

"Conversely, loss of weight is usually very beneficial to obese patients with cardiac disease; their cardiac reserve is increased and their symptoms may disappear for long periods. It is significant that we found a low incidence of overweight among patients

(Continued on Page 42)

Urges Standardization, Increased Bed Capacity of Nursing Homes

The time has come for the standardization and an increased bed capacity of nursing homes, in the opinion of Dr. Thomas P. Murdock, Meriden, Conn.

"The overloading and overburdening of the general hospitals, the increased cost of hospitalization, the increase in life expectancy, the large numbers of persons covered by prepaid hospital and medical plans, and the undoubted increase in the number of persons suffering from long-duration illness all indicate that from this time on the nursing homes will take their rightful places in the sun," Dr. Murdock, a member of the board of trustees of the A.M.A., wrote in a recent issue of the *Journal of the American Medical Association.*

The life expectancy and aged population in the United States are continually increasing, Dr. Murdock pointed out. Statistics have shown that older persons are particularly prone to such long-duration illnesses as heart and blood vessel diseases and cancer. Great numbers of these patients with long-duration and probably incurable illnesses in general hospitals could be cared for as well, if not better, in nursing homes.

Therefore, an increase in the bed capacity of such homes is necessary, he added. Such a change-over of procedure would serve a three-fold purpose: (1) the general hospitals will have more beds available for acutely ill persons, (2) the general cost of hospital care will be reduced, and (3) the care of the patient with long-duration illness will be improved and specialized in nursing homes.

There are 14,000 nursing homes in the United States at the present time, some of which are good and some poor, Dr. Murdock said. Standardization is a necessity, but must be done cautiously and carefully on the basis of pattern direction and by a voluntary approach.

"At present, the public health laws and fire laws of the various states make certain specific requirements," Dr. Murdock stated. "This is as it should be, and they must be religiously enforced. Obviously, older persons or disabled persons need greater protection than the young and well. The progressive cities and states are those that have adequate public health laws and fire laws.

"Specifically, several recommendations can be made as to medical care in nursing homes. Where possible, these home can be annexed to the general hospital. If this is not possible, an affiliation with a general hospital may be accomplished. It is of benefit to the general hospital to know that a suitable affiliation exists where their patients with long-duration illness will be adequately cared for.

"I would urge that, wherever possible, the medical care be provided on a voluntary basis. In the larger homes, by which I mean those of 100 to 200 beds, I

(Continued in Back Advertising Section, Page 82)

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High Altitude Flying May Cause Splenic Damage in Negroes

(Continued from Page 26)

we were unable to demonstrate the sickling trait in one of our patients, we feel that this was probably the underlying factor in all cases and was related to high altitude flying with subsequent low oxygen tension.

"We have no definite proof that a direct cause and effect relationship exists between high altitude flying, sicklemia trait and splenic infarction; however, the triad is certainly suggested and cannot be overlooked. The military implications are obviously important and warrant further investigation."

The authors, at the time the article was prepared, were associated with the surgical and medical services at the Francis E. Warren Air Force Hospital, Wyoming. Captain Cooley now is a fellow in surgery at the Mayo Clinic, Rochester, Minn.

Cardiovascular Diseases in Women May Not Be Influenced by Obesity

(Continued from Page 38)

who had made a long-lasting, complete functional recovery from coronary occlusion and insufficiency. In these patients, the avoidance of overweight probably was a factor in the complete functional recovery from severe acute episodes of coronary disease.

"Although obesity occurs more commonly in patients with hypertension or coronary disease, no definite conclusion concerning the etiological relationship between obesity and these diseases can be drawn. The reports in the literature and our own observations, however, clearly indicate the importance of avoiding obesity in cardiovascular disease."

The report was made by Drs. Arthur M. Master, Harry L. Jaffe and Kenneth Chesky, all of whom are associated with the cardiographic department, Mount Sinai Hospital, New York.

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* Mg trisilicate, 3.5 gr.; Ca carbonate, 2.0 gr.; Mg oxide, 2.0 gr.; Mg carbonate, 0.5 gr.
** Steigmann, F., and Goldberg, E., J. Lab. & Clin. Med. 42:955 (1953)

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.Malone, H. J.; Klimkiewicz, G. R., and Gribetz, H. J.: A Study of the Hypnatic Effect of Dormisan in Children, J. Pediat. 41:153, 1952.

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May, P. R.A., and Ebaugh, F. G.: Use of Hypnatics in Aging and Senile Patients: A Clinical Study of Dormisan, J.A.M.A. 152:801, 1953.

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Radioactive Gold Offers Relief from Malignancy Complication

Injections of radioactive gold offer relief in many cases of fluid accumulations in the body's cavities resulting from malignancy, it was reported in a recent issue of the *Journal of the American Medical Association*.

Use of radioactive gold injections in 74 patients afflicted with fluid accumulations in the chest, abdomen, or both, including two with accumulations in the membraneous sac containing the heart, was described. About half of the entire group received relief as determined by the inhibition of fluid formation. In the group of patients who lived longer than one month, distinct relief was achieved in about 75 per cent.

One of the complications of advanced cancer is the accumulation of fluid in the chest and abdomen, which not only mechanically interferes with the function of the lungs and gastrointestinal tract but also depletes the body of proteins. Accumulation of fluid causes distention of the part of the body involved, pain, weakness, difficulty in breathing, and swelling of the ankles.

Some patients may continue to accumulate fluid for several weeks and still have a favorable response, according to the authors of the article, Drs. William B. Seaman and Alfred I. Sherman, St. Louis, and Dr. MacDonald Bonebrake, Springfield, Mo. All are associated with the Washington University School of Medicine.

Radioactive gold injections are not curative and every patient with fluid accumulation due to malignancy is not a candidate for such injections, the doctors stated. Because the amounts of radioactivity involved in this type of therapy are potentially hazardous, such treatment should be carried out in a hospital and only by personnel familiar with the dangers and methods of protection, they added.

This mode of therapy has been well tolerated by the patients in almost all instances, the doctors pointed out. No significant amount of radiation sickness has been encountered.

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Cortisone Aids in Treatment of Bell's Palsy

Speedy recovery from Bell's palsy following the use of cortisone was reported in a recent issue of the *Journal of the American Medical Association.* Bell's palsy is a common disorder of unknown origin which causes paralysis of the facial nerves and muscles. It usually takes many months to effect recovery. Little or no progress in its treatment has been reported until recently.

Two cases of immediate, complete recovery from the disorder were reported by Drs. William P. Robison and B. F. Moss, Augusta, Ga. One case was that of a 13-year-old girl who recovered within two weeks after cortisone therapy was instituted. The second case was that of a 5-year-old boy who recovered within three weeks after treatment with cortisone was begun. "The use of cortisone therapy in these two patients was followed by prompt recovery," the doctors wrote. "No patient suffering from Bell's palsy seen previously in our department over the last fifteen years has recovered in less than several months."

"We are encouraged by the results of cortisone therapy in these two patients suffering from the early stages of Bell's palsy. Obviously, we cannot draw sweeping conclusions from observations so limited. We feel justified in the hope that others will test the use of cortisone in this disorder."

The doctors are associated with the department of psychiatry and neurology, Medical College of Georgia.

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Summary of Public Relations Conference Speeches

More than 350 physicians and medical society lay personnel attended the St. Louis PR conference where policies, problems and techniques in the field of medical public relations were discussed from all angles.

Pointing out that "medicine has outgrown the little black bag," Dr. Walter B. Martin, Norfolk, Va., president-elect of the American Medical Association, said in his keynote address that "health is no longer entirely an individual matter between a physician and a patient." Problems that arise, he added, need careful joint exploration for the purpose of coordinating all health activities for the total benefit of the public.

"I like to think of public relations not as a means of putting ourselves in a better light before the public," Dr. Martin observed, "but as a way by which we can learn better how to serve the public and to constantly enhance the quantity and quality of medical care and its availability."

Dr. Leo H. Bartemeier, Detroit, chairman of the A.M.A. Committee on Mental Health, urged physicians to employ some of the general principles of psychiatry and to understand the feelings of anxiety, fear and insecurity which motivate some patients.

"Many adult patients expect the same understanding and attitude from their physicians, the same omniscience and the same omnipotence they believed their mothers possessed," he said. "Repeated failure to understand patients in matters which are of a serious nature to them tends to motivate them away from medicine."

Mr. Howard W. Bennett, New York, manager of Economic Education in the Plant Community Relations Division of the General Electric Company, told the conference that "the American system is different from any other system in the world the same as American medical societies are different from any other medical societies around the globe." To protect this system, he added, "all of us should be on the lookout for proposed changes that might remove an essential part of the system."

Observing that efforts have been made to smear medicine because of an alleged negative attitude, Mr. Roger Fleming, Washington, D. C., secretary-treasurer of the American Farm Bureau Federation, pointed out that "seven of the ten commandments start out 'Thou shalt not.'"

Mr. Rollen Waterson, Oakland, Calif., executive secretary of the Alameda-Contra Costa County Medical Association, who presided over a symposium on "Mending Our PR Fences," told the group:

"If we are to have good public relations with people, we have to back up what we say, be what we pretend to be and produce a uniformly good product."

Describing the work of a hospital tissue committee, Dr. Henry V. Weinert, Passaic, N. J., declared:

"Properly encouraged, physicians will permit self-examination and correction, which is excellent prophylactic therapy for future adverse publicity and another step to good public relations."

Don't Get Your Vitamins Out of a Cosmetic Jar

Alchemy makes alluring ads, but it has no place on milady's dressing table.

Vitamins have their place, but their use in cosmetics may constitute a health hazard, according to Mrs. Veronica L. Conley, assistant secretary of the American Medical Association's Committee on Cosmetics. Writing in a recent issue of *Today's Health* magazine, published by the A.M.A., she stated:

"From time to time we hear claims of something new and different in a cosmetic. We are told that some product is a panacea for wrinkles, crepiness and other signs of aging. On the basis of experience, most people view such claims with a sophisticated eye. They want more than an advertising claim to be convinced, since even a quick glance at the most faithful cosmetics user is proof that skin aging proceeds undisturbed.

"This is how we view the recently revived and widely publicized vitamin-containing cosmetics. A decade ago the Federal Trade Commission ordered certain manufacturers to 'cease and desist' from claiming that the addition of vitamins A and D to cosmetics had any beneficial effect on the skin. Therefore, the reappearance of vitamin cosmetics about two years ago was the occasion for some surprise."

During the last few years, Mrs. Conley stated, much has been learned about vitamins A and D—that they are not always the good substances that they were thought to be. Experience has shown that continued excessive intake can cause serious reactions, she added. Another important fact discovered in recent years is that vitamin A applied to the skin of animals causes local thickening.

"Just what significance this has in people must still be demonstrated, but it does indicate that sufficient vitamin A may cause skin changes," Mrs. Conley pointed out. "Whether they are good or not remains to be seen.

"The question then follows: 'What does all of this mean in relation to the daily use of vitamin A or vitamin A-D creams over a long period?' The answer is: 'We don't know.' In spite of this, vitamin-

(Continued on Page 72)

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Warns Against Topical Use of Antihistamine Drugs

Topical use of antihistamine drugs should be limited because sensitivity of the skin to such drugs overshadows their possible efficacy, according to the Council on Pharmacy and Chemistry of the American Medical Association.

In a recent issue of the *Journal of the American Medical Association*, the council reported a survey of some of the country's leading dermatologists disclosed that the majority of them either have limited the use of these preparations or have abandoned them entirely. The survey also revealed:

1. That numerous cases of dermatitis have appeared coincidentally with the use of such preparations.

2. That although this has not been attributed to all of the antihistamine drugs, they are potentially capable of producing cutaneous sensitivity.

3. That such adverse effects can be considered to outweigh their usefulness at the present time.

"Regarding topical therapy in general, the suggestion was offered that until all important drugs or those commonly used for internal administration are proved to have a low index of sensitization, they should not be employed topically," the report added.

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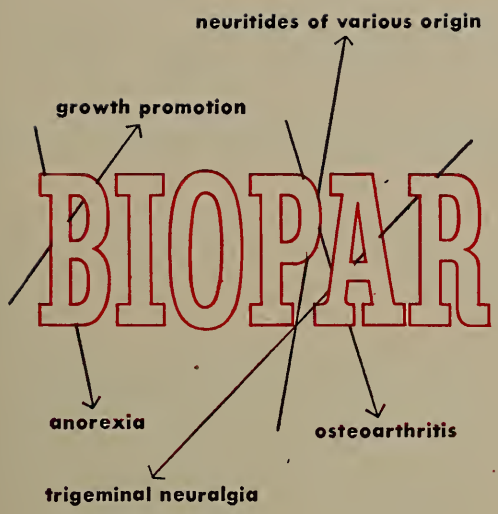

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3. The federal government to take a more important role in rehabilitation of the physically handicapped.

4. Extension of social security to more than ten million additional persons. (The President's State of the Union message did not mention mandatory coverage of physicians and others, but the Administration's bill carries this provision.)

5. Continuation of medical care for military dependents, but the message did not give any detailed recommendations.

6. Broadening of present Hospital Survey and Construction Act (Hill-Burton) to aid in development of facilities for the chronically ill, diagnostic centers, rehabilitation facilities, nursing homes.

—A.M.A. Washington Letter

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The Electroencephalogram in Epilepsy

HENRY W. NEWMAN, M.D., San Francisco

• In light of the considerable divergence of opinion among various investigators regarding the incidence of electroencephalographic abnormality in patients with convulsive disorders, the author made a study of his own records of 430 patients with a diagnosis of epilepsy. In 122 the seizures were symptomatic, in the remainder idiopathic, and the overall incidence of electroencephalographic abnormality was little different in the two groups. In the whole series 64.9 per cent showed abnormal tracings, while in those under 16 years of age the incidence was 71.8 per cent. The highest incidence was in patients in whom seizures had begun when they were between 10 and 15 years of age and in those with a duration of seizures from 5 to 10 years. Of patients with clinical petit mal, 76 per cent had abnormal records, but only 34.6 showed petit mal complexes. Lateralized or focal abnormality was three times as frequent in the symptomatic as in the idiopathic group.

BY FAR THE GREATEST NUMBER of patients referred to the electroencephalographic laboratory in a general hospital are sent there because of suspicion of a convulsive disorder. The referring physician wants to know whether the patient has a convulsive disorder, and if so what may be the cause of it. That the electroencephalographer is not always able to provide a definite answer to these questions comes as a disappointment to many physicians. This is not unreasonable, since there are reports in the literature that would imply the electroencephalograph is next to infallible in the diagnosis of epilepsy.

Gibbs, Davis, and Lennox in 1935[4] reported the characteristic electrical findings during epileptic seizures, and noted that similar patterns occurred in patients with petit mal between seizures. Walter in 1937[9] found that of a group of patients with seizures about half would have abnormal electroencephalograms and that the majority of those with such abnormalities would be persons under 40 years of age with idiopathic epilepsy. The same year Gibbs, Gibbs and Lennox[6] went so far as to define epilepsy as "paroxysmal cerebral dysrhythmia," implying that the electrical abnormality was of primary importance. Jasper and Kershman[7] in 1941 denied the specificity of the electrical abnormality for the type of seizure but stated that they found abnormal records in 95 per cent of 494 patients with clinical epilepsy. They felt that bursts of higher voltage, which they termed *hypersynchrony*, were the important feature, rather than the "dysrhythmia" stressed by Gibbs. Finley and Dynes[2, 3] also disagreed with Gibbs on the specificity of the epileptic pattern, and reported that 86 per cent of 626 epileptics had abnormal tracings.

While Lennox[8] stated that 90 per cent of epileptic persons show "pronounced disturbances of the electrical waves of the brain" in a seizure-free period, the very complete tabulation of results in a large number of patients published in 1943 by Gibbs, Gibbs and Lennox[5] shows that the incidence of abnormal tracings varies with the age of the epileptic patient, and that if slightly abnormal tracings, which have a rather high incidence in subjects without epi-

From the Electroencephalographic Laboratory and the Department of Medicine, Stanford University School of Medicine, San Francisco.

lepsy, are excluded the proportion of definitely abnormal records drops to 67.9 per cent in epileptic persons under 20 years of age and 51 per cent in those older than that. Lennox, discussing a paper by Abbott,[1] stated that "perhaps the electroencephalogram was oversold at first." He stressed the fact that criteria of normality are indefinite, and that the incidence of abnormality may vary in different groups of epileptic persons. He said that it was only 75 per cent in his private practice. Walter[10] reviewed the records of 6,000 patients with seizures and found abnormal tracings in 55 per cent. He was of the opinion that, with the gains in experience over the years, encephalographic abnormalities might be expected to be observed in 65 per cent of epileptic persons.

In view of this rather wide disparity of opinion, the author felt that it was worth while to review his own records. The series consisted of 430 patients in whom a diagnosis of epilepsy had been established on clinical grounds in the Stanford outpatient clinic and neuropsychiatric ward. The patients were representative of a lower socioeconomic stratum, but by no means of the indigent. The electroencephalographic tracings were made with a standard Grass 8 channel electroencephalograph. Needle electrodes were used, with bipolar recording from a minimum of ten electrodes, supplemented by six additional electrodes for localization if indicated. The tracing was continued at least 20 minutes, with a five-minute period of hyperventilation. Patients under the age of five years could rarely cooperate effectively in overbreathing. All tracings were made without sedation, and no activating procedures other than hyperventilation were employed. The results of the first tracing only are considered in this survey, although many patients had repeated tracings. Except for small children, who were held in arms, the patients reclined on a couch in a normally lighted room under close observation of the technician. If the patient had not eaten a substantial meal within two hours, sweetened fruit juice was administered to insure a reasonable content of sugar in the blood. All tracings were taken with the eyes of the patient closed except where the age of the patient made this impossible. Sleep was avoided except in infants, where its natural occurrence often provided the only readable part of the record.

All of the tracings were read and interpreted by the author, so that the criteria of abnormality may be presumed to have remained fairly constant over the five-year period involved. The classification employed was simple, yet difficult to define clearly and exactly, since it depended mainly on the judgment and experience of the interpreter. Records were classified grossly as normal and abnormal. In the normal category were included many that would be considered on the borderline of abnormality by other observers; this is particularly true of the fast, low voltage tracings, of those with random spiky waves, and, in young children, of all records without either a lateralized or localized abnormality or typically paroxysmal activity.

TABLE 1.—*Incidence of electroencephalographic abnormality in patients free of convulsive disorder or organic nervous system disease*

	Age	
	0-15	16 and over
	Per cent	Per cent
Normal	90	99
Normal, fast	0	41
Borderline	20	2
Abnormal	10	1

TABLE 2.—*Relation of age of patient at onset of seizures to electroencephalographic abnormality*

	Ages of Onset (years)					
	0-5	5-10	10-15	15-20	20-30	over 30
	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent
Normal	33.7	29.0	24.2	25.7	36.3	51.4
Abnormal	66.3	71.0	75.8	74.3	63.4	48.6

Using the same criteria the tracings of 100 patients free of convulsive disorder or organic disease of the nervous system were reviewed (Table 1).

A not inconsiderable percentage of normal persons, especially below the age of 16, had tracings that even with the strict criteria employed must be considered beyond the normal range. The number of adults with such tracings is, however, sufficiently low to make the finding of such abnormality highly significant.

Of the 430 patients with convulsive disorders, 220 were 16 years of age or less. The incidence of abnormal tracings in the group as a whole was 64.9 per cent, while in those 16 years of age and under it was 71.8 per cent.

The results according to the age of onset of seizures are given in Table 2. The maximum incidence of abnormal tracings was in persons who were between 10 and 15 years of age at the time seizures began, with little difference from 5 to 20 years. Many of those in whom the age of onset is known to be less than 5 years were observed by the author when they were very young, so that the lower percentage of abnormal tracings in this group probably finds its explanation in the very rigid criteria of abnormality it was found necessary to adopt in dealing with young children.

Table 3 shows the incidence of abnormality according to the length of time seizures had been present when the tracing was made. Here the same general trend was manifest, with the highest incidence of abnormality in patients with a seizure duration of 5 to 10 years. It is interesting that not only are patients in whom seizures develop relatively late less liable to show an abnormal tracing, but the same is true of those who have had seizures for a long

TABLE 3.—*Relation of duration of seizures to electroencephalographic abnormality*

	Duration (years)			
	0-5	5-10	10-20	over 20
	Per cent	Per cent	Per cent	Per cent
Normal	33.6	29.5	36.5	48.9
Abnormal	66.4	70.5	63.5	51.1

TABLE 4.—*Type of electroencephalographic abnormality related to age of onset and duration of seizures*

	Age of Onset (years)		Duration (years)	
	0-15	over 15	0-10	over 10
	Per cent	Per cent	Per cent	Per cent
Diffuse slow	58.2	61.5	56.3	68.7
Lateralized slow	5.5	12.8	8.4	4.7
Focal slow	10.9	19.2	13.5	12.5
Voltage difference	2.0	2.6	2.3	1.5
Petit mal	23.4	3.8	19.5	12.5

TABLE 5.—*Incidence of electroencephalographic abnormality in different types of epilepsy*

	Grand mal	Petit mal	Psychomotor	Jacksonian
	Per cent	Per cent	Per cent	Per cent
Normal	36.6	24.0	33.3	25.6
Abnormal	63.4	76.0	66.7	74.4

time. The most reasonable explanation for this is the increasing stability of the electroencephalogram with advancing years.

The type of abnormality found differed in the different age groups (Table 4). Patients with onset of seizures before they were 16 years of age showed fewer lateralized or focal abnormalities, but many more paroxysmal records of petit mal type. The occurrence of slightly more focal abnormalities in patients in whom the duration of seizures was less than ten years may be explained by the circumstance that such abnormality is often symptomatic of a cerebral neoplasm, the poor prognosis of which could account for few survivals for ten years. The much higher incidence of petit mal tracings in patients with early onset of seizures is striking; the lower incidence of petit mal patterns in patients with duration of seizures of more than ten years would seem to indicate a reduction of this kind of activity with age.

The incidence of abnormal records in patients with different kinds of convulsive disorder is given in Table 5. Although the differences are not great, there is a somewhat higher incidence of abnormality in patients with petit mal and Jacksonian than in those with grand mal and psychomotor seizures. While 76 per cent of patients with petit mal seizures showed abnormal records, only 34.6 per cent had typical petit mal complexes. Of the patients with Jacksonian seizures, 45.6 per cent showed abnormalities which were either lateralized or localized.

Organic disease of the nervous system was demonstrated clinically in 122 of the total of 430 cases, the seizures being symptomatic of this disease, while in the remaining 308 cases the seizures must be classified as iodiopathic. The incidence of abnormal records was 70.5 per cent in the symptomatic group, 62.7 per cent in the idiopathic. The incidence of lateralized or focal abnormality was three times as great in the organic as in the idiopathic group.

From the foregoing data certain conclusions may be drawn. If the criteria of abnormality of the electroencephalogram are sufficiently strict to reduce the incidence of abnormality in the tracings of patients known not to have epilepsy to 5 per cent or less, about two-thirds of patients with seizures can be expected to show abnormal tracings on a single test in which only overbreathing is used for activation. This proportion can undoubtedly be increased by doing repeated tests and by activation with sleep, metrazol, photic stimulation or a combination of these. (The introduction of the adjuncts, however, introduces complications both of technique and interpretation which are beyond the scope of this communication.) A young patient with idiopathic epilepsy of short duration is much more likely to show an abnormal tracing, especially if there is a history of petit mal. On the other hand, an older patient who has had seizures, particularly grand mal, over an extended period is less likely to have an abnormal electroencephalogram. Thus the electroencephalograph can provide useful information in many cases of convulsive disorder, but the presence of a normal record by no means excludes this diagnosis. Since criteria of abnormality must vary among different electroencephalographers, the weight to be given a report of "abnormal" must vary also.

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Abnormalities of Scrotal Contents in Children

DONALD A. CHARNOCK, M.D., Los Angeles

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PEDIATRICIANS AND UROLOGISTS have a mutual interest in diagnostic and therapeutic problems associated with the scrotum and its contents.

Infectious lesions of the scrotum are not uncommon in children. Scrotal cellulitis may develop as a result of localized irritation. Often the cause is infected or concentrated urine. In most cases proper cleansing and application of Diaprex® to the irritated areas is sufficient.

Edema of the scrotum is not unusual. It may be secondary to cardiac or renal conditions. Occasionally it may be idiopathic. Treatment is directed to the cause but palliation will be helpful to the comfort of the child. Support of the swollen testicle can be applied in a variety of ways.

Injuries to the scrotum, which are not common, may result in hematoma, hematocele or, more often, ecchymosis. Hematoma, an effusion of blood into the scrotal tissues, unless extensive, rarely necessitates surgical treatment. For hematocele, a collection of blood within the already existing cavity of the tunica vaginalis, surgical drainage is often necessary. Sometimes scrotal injuries occur during difficult breech deliveries. Straddle injuries usually involve the urethra. If extravasation of urine occurs, the process will involve the scrotum and drainage will be needed.

Hydrocele is the greatest cause of scrotal swellings. A variety of types are recognized, the type depending upon the location of the collection of fluid. The condition may be associated with incomplete descent of the testes and often with hernia.

Hydrocele is relatively common in newborn infants. It indicates that the lymphatic channels of the tunica vaginalis are late in development. Infantile hydroceles often disappear within the first year of life. This is thought to be due to continued growth of the lymphatic system. Hydroceles in infants should be treated expectantly unless they are so big they cause inconvenience or result in pressure to the scrotal contents.

Hydroceles of the congenital type drain and empty when the child is recumbent since the tunica vaginalis is not completely closed and the fluid can return to the peritoneal cavity. This variety is often associated with hernia. The hydrocele which persists in any position usually involves the tunica vaginalis but may involve the cord alone, and even the epididymis.

The diagnosis of hydrocele should be simple. It is translucent; rarely is the tunica vaginalis so thickened in childhood that transillumination is questionable. It is most important to differentiate hydrocele from a solid tumor of the testicle or from a hernial sac. The shape of the hydrocele mass will usually give a definite clue to its identity. Hydroceles usually are pyriform with the large portion within the scrotum. Except in strangulated hernia, where symptoms referable to irritation of the bowel usually are present to aid in determining the nature of the lesion, a hernia mass is usually reducible. While rare in childhood, hard solid tumors must always be considered. Unlike hydroceles, they are not translucent. Spermatoceles are rare before puberty.

Aspiration of the hydrocele sac is a very satisfactory means of diagnosis in equivocal cases and at times may be necessary, although it is not recommended in children because of the frequent association of hernia.

In the author's opinion, hydrocele should be treated surgically. Injection of sclerosing material should not be done in children. Complete excision of the excess tunica vaginalis is the operation of choice. Repair of coexisting hernia is mandatory.

Epididymitis is next in order of frequency. At times it may be associated with infections of the testicle. It is usually relatively sudden in onset and is associated with pain, increase in temperature, and swelling of the affected parts. The leukocyte content of the blood is elevated. Except in chronic cases, which are relatively rare, the child is restless and very uncomfortable. Urinary infections are the common etiological factor although in some cases

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in very young children the condition has been caused by infections of the prostate and seminal vesicles. Occasionally epididymitis results from trauma. In epididymitis of the chronic type, which is rarer in childhood, tuberculosis of the genital or urinary tract must be considered.

Diagnosis is usually made by palpation of the scrotum, examination of the urine and a survey of the general condition of the child. Rectal examination for evaluation of the condition of the seminal vesicles is a most important step in the diagnosis of chronic epididymitis. Epididymitis is, at times, accompanied by hydrocele, the accumulation of fluid developing as a protective mechanism. Indeed, epididymitis is a definite etiological factor in the production of hydrocele.

Supportive treatment is indicated for acute epididymitis. The pain may be relieved by elevation of the scrotum. Ice bags or heat applied periodically will relieve pain and reduce the swelling. Prompt and intensive administration of chemotherapeutic drugs will usually result in resolution. If suppuration develops, surgical intervention is indicated to prevent atrophy of the testicle.

Since tuberculosis must be considered in dealing with chronic epididymitis, surgical exploration is indicated if chemotherapy does not result in complete resolution. Where the condition is bilateral, it is better practice to remove one epididymis at a time. (In one case of chronic bilateral epididymitis in which all the factors indicating tuberculous infection, except sinus formation, were present, the author removed the epididymis on one side. Later the disease was found to be non-specific and eventually it responded to chemotherapy.)

Orchitis is a rare condition in children. When it does occur it is often confused with epididymitis. It is usually a result of trauma or is a secondary development of acute epididymitis or a complication of mumps. Traumatic orchitis may result from injuries at birth. Occasionally it occurs following contusions and other forms of traumatic injuries. Orchitis associated with severe epididymitis produces the same symptoms as the primary disease. In older boys it is associated with mumps in 5 to 15 per cent of cases but it is rarely a concomitant of mumps in the early years of life. It has, however, been reported in infancy without signs of parotitis. The swelling and discomfort in the testicle appear around the eighth day and usually subside three or four days later.

The treatment for orchitis is rest, scrotal support, cold or hot applications and judicious use of chemotherapy. A protective hydrocele frequently occurs and incision of this may be beneficial in arresting atrophy. Testicular atrophy is a very common sequel. In orchitis of mumps, great help has been reported from the use of estrogens, but these hormones are of no benefit to prepubescent patients. Multiple puncture of the tunica albuginia has been recommended as a means of reducing the tension within the testicle in orchitis, but follow-up studies indicate that atrophy frequently follows this procedure.

Varicocele occurs occasionally in childhood. It usually is the result of anatomic abnormalities of the spermatic vein. This is more common on the left side where the spermatic vein generally empties into the renal vein at a right angle. On the right side the spermatic vein usually enters directly into the vena cava at an acute angle and has a more effective valve mechanism.

In older boys, varicocele can result from excessive masturbation. The symptoms in children rarely necessitate treatment unless the congestion in the spermatic plexus of veins is excessive. Operation should not be done.

Secondary varicocele is an index of pressure upon the spermatic veins. This may be caused by tumors, usually renal in origin, or by a large hydronephrotic mass. Retroperitoneal tumors may result in spermatic vein obstruction. Secondary varicocele can develop on either side and is usually sudden in onset. It is readily distinguishable from primary varicocele, for the primary form empties when the patient is recumbent whereas secondary varicocele does not and dilation will subside only upon removal of the obstructing mass.

While varicocele is not a common or even important lesion, its sudden appearance, especially on the right side, should suggest the possibility of retroperitoneal or renal disease.

Torsion of the testicle is the term applied to twisting or axial rotation of the spermatic cord. It usually occurs in a testicle with an elongated cord or with an imperfectly attached gubernaculum and may occur in an improperly descended testicle. Although it may happen at any age, the highest incidence is around puberty. The left side is more often involved. Bilateral torsion has been reported.

The development of torsion usually follows a trivial physical effort. (The author observed a boy who had torsion that had occurred when he was stamping out the tempo while playing a piano. Reaching for a second helping of pie was the cause reported in another case.) Onset is sudden. The testicle is exquisitely tender and lies high in the scrotum due to the shortening of the cord. Swelling develops rapidly. The patient looks and feels sick, and nausea and vomiting are frequently present. Shock is not uncommon. In torsion of an undescended testicle, the symptoms may resemble those of strangulated hernia. The condition is often confused with epi-

didymitis or orchitis. If there is doubt as to diagnosis, immediate surgical exploration is mandatory.

Changes in the testicle following torsion depend upon the degree and duration of vascular obstruction. Where the twist is complete, there is immediate hemorrhagic infiltration into the testicle. Gangrene of the testicle develops within 48 hours. This has been shown both clinically and in animal experimentation. Section of the testicle after this period of time shows it to resemble an organized blood clot. Atrophy is the invariable result. In cases in which torsion of the cord is suspected surgical exploration should be carried out immediately. If torsion is present, the testicle and cord may be untwisted and sutured to the base of the scrotum. If this is promptly accomplished, no permanent injury to the testicle will result. Once gangrene has developed, orchiectomy is necessary.

Occasionally observed is a chronic or relapsing form of torsion in which periodic twisting of the cord may occur. This may develop if there is considerable mobility of the testicles or in persons in whom sudden reflex tightening of the cremaster muscle will cause the testicle to disappear into the inguinal canal. The onset of periodic torsion of this kind is brought on by muscular effort. The pain is immediate and severe but is usually relieved when the patient reclines in a relaxed position. In such cases the testicle should be anchored to the base of the scrotum.

In any case of torsion the same degree of elongation of the cord or imperfection of scrotal attachment will usually be present on the opposite side. Fixation of the contralateral testicle is advisable as a prophylactic measure.

Although there is little in the pediatric literature on torsion of the testicular appendage, more commonly known as the hydatid of Morgagni, and torsion of the appendix of the epididymis, the organ of Giraldes, these conditions exist in a significant number of cases. The symptoms are similar to those of torsion of the testicle but are much milder in character. Sometimes a tender mass may be palpated at the upper pole of the testicle. Surgical excision is the treatment. So far as is known, atrophy of these appendages results in no damage to the testicle.

Tumors of the testicle in children are rare. Those that do occur are often congenital and the greatest incidence is within the first three years of life. Teratoma is the most common variety, then sarcoma. Seminoma and adenocarcinoma are rare. Occasionally Wilms' tumors spread to the testicle. Tumors of the testes grow rapidly. With the exception of seminomas they show very little sensitivity to radiation. They metastasize rapidly to the aortic lymph chains and to the lungs.

Interstitial cell tumors have been reported in children. They grow slowly and are accompanied by signs of precocious puberty. Although these tumors may be classified as relatively benign, the treatment is orchiectomy.

To be effectual, the diagnosis of testicular tumor must be made early. If one of the testes is hard and nontranslucent and seems heavier than the other testis, there is strong suggestion of tumor. Not infrequently a protective hydrocele will make diagnosis more difficult. Where tumor is at all suspected, aspiration of the hydrocele will aid in the diagnosis. Aspiration of the tumor for biopsy should never be done. The treatment of these tumors is immediate orchiectomy followed by intensive radiation therapy. The prognosis is poor.

Cryptorchism is the commonest of congenital anomalies of the seminal tract. The primary consideration in the treatment of the condition is the preservation of fertility. Over 90 per cent of boys with undescended testicles are sterile if the condition remains after puberty.

Too much reliance has been placed upon hormone therapy in such cases. If no hernia exists and there are no mechanical factors to fix the glands, gonadotropic hormones may be used. Hormone therapy is more successful in cases of bilateral than of unilateral cryptorchism. The suggested dosage in boys of 4 to 5 years of age is 250 international units of gonadotropic hormones three times a week for four weeks. If no results are obtained with a total of 3,000 units, operation should be advised. Overdosage with gonadotropins may result in precocious sexual development. It is expensive therapy.

Testosterone should never be used in the treatment of undescended testicles, for that would be substitution therapy, whereas gonadotropic substance is stimulative. While testosterone will increase the secondary sexual characteristics, it may result in testicular damage due to atrophy of disuse.

Surgical treatment of undescended testicles is well established. Careful freeing of the cord will lengthen the structure enough so that the testes can be placed within the scrotum. The Torek fixation is, in the author's opinion, the best procedure.

Whether or not undescended testicle is associated with increased incidence of malignant disease is still moot. At present most investigators favor the removal of a testicle that cannot be brought down into the scrotum, provided the other testicle is normal.

Recent studies by Robinson and Engle indicated that descent of the testes should be accomplished by the fifth year if spermatogenesis is to be preserved. Their studies show that spermatogenesis will rarely develop if the testicles remain undescended beyond that age. Formerly, most observers were of the opinion that any time before puberty was suitable for orchidopexy.

2010 Wilshire Boulevard.

Cancer Detection

A County Medical Society Program, Riverside, California

L. HENRY GARLAND, M.D., San Francisco, and
C. P. McCULLOUGH, M.D., Riverside

• *Cancer detection examinations by physicians in their private offices were performed as a county medical society project for a period of one year.*

In a series of 6,765 patients examined, approximately 600 were found to have lesions clinically suspect for tumor. The total number of proven cancers discovered was 280 and the number of lesions classified as precancerous was 87.

This percentage of tumors discovered compares favorably with reports from special cancer detection centers formerly utilized in other parts of the country.

The Cancer Commission believes that periodic health examinations of persons over the age of 40 in the offices of private physicians is a practical approach to the problem of earlier detection of tumors at accessible sites—the tumors that are the most readily curable by current surgical and radiotherapeutic techniques.

THREE YEARS AGO a report was made on the results of an experiment of about two years' duration with four cancer detection centers in California.[3] The Cancer Commission of the California Medical Association concluded at that time that cancer detection centers of the type under study were not a practical approach to the problem of early detection. It was believed that a more practical approach would be emphasis on making every physician's office a detection center, including stress on annual examinations of persons over 40 years of age for tumors in the five common accessible sites.

Following completion of that report, the Cancer Commission prepared a model program for trial in one or more of the component county medical societies in the state medical association (Exhibit A). Discussions were held with the officers of the Riverside County Medical Association and plans were completed for trial of an office detection program in that county for a period of 12 months. In June 1952, Dr. J. S. O'Toole, chairman of the Cancer Committee of the Riverside County Medical Association, sent a letter to internists, general surgeons and general practitioners inviting their cooperation.

Thirty-four physicians agree to participate. Dr. O'Toole then called a meeting of the office secretaries of these physicians and explained the program to them (Exhibit B). These secretaries were requested to assist the doctors in completing a very short card (Exhibit D) or cancer report (Exhibit C) and to mail such cards to the office of the county society once a month.

At the end of 12 months the cards were tabulated and the effectiveness of the project analyzed by McCullough, whose report as follows was submitted to the Cancer Commission of the California Medical Association:

Report on a Cancer Detection Program in the Private Physician's Office Sponsored by the Riverside County Medical Association†

During the year of June 1, 1952, to May 31, 1953, a pilot project in the field of Cancer Detection was carried on in Riverside County through the joint efforts of the Riverside County Medical Association and the American Cancer Society. Because this survey was the first of its kind in California, we feel that publication of methods used, statistical findings and conclusions should be of interest to the medical profession of the state.

PURPOSE OF SURVEY

This survey was undertaken in an effort to evaluate the following:

(a) How successful is publicity in increasing the number of people who regularly see their physicians for physical examinations?

(b) What has been the effect of publicity in encouraging people to visit their physicians at the first appearance of signs or symptoms of cancer?

(c) How many and what type of malignancies can be detected by physical examination in the suppos-

This is a report of the Cancer Commission of the California Medical Association, 450 Sutter Street, San Francisco 8.

†Secretarial and tabular work aided by a grant from the California Division of the American Cancer Society.

edly well patient, with special reference to the accessible sites of the body?

(d) How successful is this type of cancer detection as compared to other methods?

METHOD OF PROCEDURE

1. Publicity—An extensive publicity campaign by members of the Riverside County Medical Association, aided by the county branch of the California Division American Cancer Society was carried on for one year prior to the survey. This publicity stressed the value of annual physical examination of adults in detection and prompt treatment of cancer, especially of the accessible sites.

2. Secretarial service in collection of reports from physicians and compilation of statistics was arranged by a grant of $1,500 from the American Cancer Society, California Division.

3. Members of the Riverside County Medical Association were contacted and 34 physicians agreed to take an active part in the survey.

4. Doctors' secretaries were personally interviewed and were mainly responsible for the success of the project.

5. A distinctive colored card was sent each secretary which was to be clipped to the history form of the physician for each new case examined. This card listed the following: Date, initials, age, sex, brief pertinent history, pathological condition found, pathological diagnosis, and signature.

6. It required only a few minutes of the physician's time to make notations on the card. This card was removed from the history and sent to the control secretary's office weekly. Each month all cards were reviewed by the Cancer Committee and tabulated.

7. To avoid duplication of reports, only the referring physician reported the patient who was seen by others in consultation. Because of the inherent difficulties in collecting such reports, and in an additional attempt to avoid duplication, such specialists as roentgenologists, orthopedists, urologists and otorhinolaryngologists were excluded. As this particular project was aimed at the adult population, pediatricians also were not called upon to report cases.

STATISTICAL REPORT

Number of physicians participating in survey	34
Number of patients examined	6,765
Number of proven malignant tumors discovered	280
Percentage of patients found to have malignant tumors	4.1%
Number of lesions biopsied	612
Number of lesions biopsied classed as malignant	212
Percentage of biopsies classed as malignant	34.6%
Number of lesions biopsied classed as precancerous	87
Percentage of biopsies classed as precancerous	14.0%
Percentage of precancerous lesions in patients examined	1.3%
Number of other pathological conditions found which required observation or treatment	532
Percentage of patients with other pathological lesions	7.8%
Average age of patients examined	46
Proportion of males to females in this survey	1 to 3
Percentage of malignant tumors in asymptomatic patients	not known

(Varied methods of reporting allowed too much error for an accurate appraisal)

Before breaking down the above statistics, it is important to recognize two factors. (1) There is an extraordinarily high incidence of skin cancer in this area; and (2) a rather high proportion of our patients are elderly or retired.

MALIGNANT LESIONS DISCOVERED AND PROVEN

(a) Cancers found in the accessible sites of the body:

Site	Number	Percentage of Total Cancers	Percentage of Total Examinations
Skin	160	57.1	2.3
Breast	12	4.3	0.17
Cervix	21	7.5	0.31
Rectum	9	3.2	0.13
Lips	8	2.8	0.11
Tongue	2	0.71	0.03
Total	212		3.1

(b) Cancer in other areas (non-accessible sites) proven by biopsy or surgery:

Site	Number	Percentage of Total Cancers
Blood (Hodgkin's)	1	0.35
Urinary bladder	5	1.7
Prostate	11	3.9
Uterus	7	2.5
Liver	2	0.7
Colon	9	3.2
Muscle	2	0.7
Ovary	3	1.0
Pancreas	3	1.0
Gallbladder	2	0.7
Stomach	5	1.7
Bone (1 sarcoma, 4 myeloma)	5	1.7
Thyroid	4	1.4
Lymph node	6	2.1
Kidney	1	0.35
C. N. system	3	1.0
Total	69	

LESIONS BIOPSIED—DIAGNOSED AS PRECANCEROUS OR BENIGN

Site	Number Precancerous	Number Benign
Rectum (polyps adenomatous)	12	
Tongue (leukoplakia)	4	
Lips	2	7
Vulva (kraurosis)	2	
Breast		59
Cervix		95
Skin (senile keratosis)	67	152
Total	87	313

BENIGN PATHOLOGICAL CONDITIONS FOUND

In addition to the above groups, a large number of pathological conditions were discovered which required observation or treatment.

Site	Pathological or Clinical Diagnosis	Number
Rectum:		
	Hemorrhoids	20
	Fissures	4
	Fistulas	3
Cervix and/or uterus:	Fibroids	17
Adnexa:		
	Chronic pelvic inflammatory disease	11
	Ovarian cyst (large)	8
	Bartholinian cyst	4
Stomach:		
	Gastric ulcer	3
	Duodenal ulcer	19
Colon:		
	Diverticulitis	3
	Amebic colitis	4
Prostate:	Chronic hypertrophy	14
Scrotum:	Hydrocele	2
Thyroid:		
	Adenoma	7
	Exophthalmic goiter	2
Liver:	Cirrhosis	1
Gallbladder:	Chronic cholecystitis	12
Skin:		
	Sebaceous cyst	6
	Ulceration (varicose veins)	4
	Lipoma	4
Total		148

VARIATIONS: AGE INCIDENCE IN PROVEN MALIGNANT TUMORS

Although pediatric conditions are not included in this survey, the youngest patient reported with malignant melanoma was eight years of age. The oldest person was 88 years of age. The following is a tabulation of the numbers of malignant tumors and the number of skin tumors found in various age groups:

	0-20	20-30	30-40	40-50	50-60	60-70	70-90
Total cancers	1	7	16	47	78	80	42
Skin cancers	1	4	9	31	42	42	31

EFFECTIVENESS OF THE PROJECT

1. This type of cancer detection program can be successfully performed through the cooperation of members of a county medical society. It is especially valuable in that it preserves the doctor-patient relationship.

2. The publicity attendant to this project is causing many more adults to visit their physicians at regular intervals for physical examination and also to seek advice at the appearance of unusual signs or symptoms. Cancer phobia, which many physicians feared would develop as a result of the publicity in this program, was a very minor occurrence.

3. The financial burden to the patient was not excessive. The usual charge for physical examination, blood and urine analysis was $15.00. Biopsy, stains, x-rays and other tests, when deemed advisable, were naturally an additional cost item.

4. The elimination of precancerous lesions and the early discovery of cancerous lesions has proven of distinct advantage to patients.

5. The physicians participating in this survey have a greater awareness of the possibilities of earlier cancer detection.

6. Reports can be so made that the percentage of malignant tumors in asymptomatic patients can be determined. This requires a thorough understanding of the project by the examining physician.

7. This type of program appears to be as effective as any other cancer detection program yet reported.

C. P. McCullough, M.D.
Cancer Committee
Riverside County Medical Association

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EXHIBITS

Exhibit A—Statement on Cancer Detection Examinations adopted by the Cancer Commission of the California Medical Association in 1951, prior to pilot study in Riverside County.

1. *The Problem.* In 1949 some 15,000 patients died of cancer in California. Almost one-half of these deaths were from cancer in accessible sites, sites where early recognition offers an increased chance of cure. About 60 per cent of cancer deaths in women are from tumors in accessible sites. In cancer detection programs in private physicians' offices it has been shown that early cancers are found that were not suspected by the patient, and would not have been discovered in the early stage were it not for examination. It is estimated that there will be about 22,500 new cases of cancer in California next year. Early recognition of many of these cases will prevent part of our growing cancer mortality.

2. *The Method.* The most practical and effective means of discovering early cancer is by *periodic* examination in the private physician's office. This is the policy of the American Medical Association, the California Medical Association, and the California Division of the American Cancer Society.

A limited physical examination directed to and including the sites of accessible cancer will discover the majority of curable cases or may establish a sus-

picion of cancer to indicate necessary additional diagnostic examinations.

This limited examination directed to accessible sites of cancer has been described and defined as a Cancer Detection Examination. Such an examination, as a definite entity to be extended to the public and to be recognized by the practicing physician, has been approved by the Michigan and Illinois State Medical Associations and by the California Medical Association. The Cancer Detection Examination encourages a uniform examination by practicing physicians and, with local organized professional approval, the provision of such examination at a reasonable fee.

3. *The Program.*

(a) The project of offering to the public a Cancer Detection Examination should first have active interest and approval of the local County Medical Society.

(b) Upon such approval, the Cancer Detection Examination should be publicized by the County Branch of the American Cancer Society with emphasis on the fact that it can be obtained in the office of the patient's own physician. If approved by the County Medical Society, a uniform fee for the examination may also be publicized.

(c) When a patient requests a Cancer Detection Examination, the results should be recorded on a simple form provided by the County Medical Society.

(d) Either verbally or by a suitable pamphlet the patient should be informed that this examination deals with *present* conditions, that such an examination should be repeated periodically, and that the patient should report for further examination immediately if he or she discovers any suspicious symptoms.

(e) A simple monthly report should be made by each physician participating in the program to the County Medical Society carrying these items:

1. Number of patients receiving the Cancer Detection Examination.

2. Number with no abnormal findings.

3. Number with abnormal findings.

(a) Definite or suspected cancer, not previously diagnosed.

(b) Cancer, but previously known.

(c) Other condition not previously known, and requiring treatment.

Such reports will give stimulus to the program. They do not involve the reporting of any patient's disease to a state agency; the patient's name is not given.

EXHIBIT B

EXHIBIT B.—Suggested Cancer Detection Examination Form for use by physicians in private offices.

CANCER DETECTION EXAMINATION (Suggested Form)

Name..... Date..... Case No.....

Sex..... Age..... Nationality.....

Address..... Telephone.....

Name and Address of Relative or Friend.....

Personal History.....

.....

Physical Findings....T.....P.....R.....Wt.....Recent Loss?.....

Head and Neck.....

Oral Cavity .....

Chest .....

Breasts .....

Abdomen .....

Rectal Exam. .....

Pelvic Exam. (Bimanual).....

(Visual).....

Skin .....

Lymph nodes (neck, axillae, groins, etc.).....

Impression .....

Disposition (and date of next exam.).....

Date..... .....M.D., Examiner

EXHIBIT C

EXHIBIT C.—Instruction Sheet issued by Riverside County Medical Association Cancer Committee to participating physicians.

1. Clip a yellow *Cancer Report Card* to the chart of each new patient on whom a complete physical examination is to be made and also on the chart of those patients who have had a complete physical examination this year.

2. In filling out the cards, write only the *initials* of the patient, *sex, age, date, number of pregnancies,* and the *chief complaint.*

3. The examinations may vary from a routine examination, such as an insurance examination to the complaint which causes the patient to come to the doctor's office.

4. In listing *"Positive Findings,"* we are interested only if the findings are cancerous or precancerous; for example:

If a patient is found to have heart disease or a cirrhosis of the liver or acute appendicitis, or even pregnancy, the findings will be recorded as "none." In other words, any lesion other than precancerous or cancerous lesions will be classified as "none."

However, if a patient is examined and a suspicious cancerous lesion is found, record that, and

when the pathological report has been returned, then send in a supplementary card with the pathological report. An example of this could be a woman examined by your doctor with the chief complaint of a lump in her breast. The "Positive Findings" at the time of the first examination would be, "Mass in breast." It would probably be at least 10 days before a pathological report could be given.

Please help your doctor in checking these suspicious lesions that are sent for definitive treatment and pathological reports by being sure that these cards with suspicious findings are sent in.

5. Please send in the Cancer Report Cards by the 5th of each month for the previous month. Deadline for cards of a previous month will be the 10th of each month. Send to Riverside County Medical Association, 3616 Main Street, Riverside. Reminder cards will be sent out at the end of each month.

6. It is very important that all negative examinations be sent in. If it is more convenient to make a single monthly summary of all negative examinations made during the month by giving a total in a letter, it may be done in this manner. A suspicious or a precancerous lesion should be reported on a card, the same as should all cancerous lesions. Please phone Riverside 4322 collect for information at any time.

EXHIBIT D

EXHIBIT D.—A sample of the Cancer Report cards sent to each participating physician in this survey. These are filled in by the doctor on each patient who has a complete physical examination, and mailed to the county medical society office at the end of each month.

CANCER REPORT

Initials..... Sex..... Age..... Date..... Para.....

Chief Complaint.....

.....

Positive Findings .....

.....

Pathological Report .....

.....M.D.

What's Old in Medicine

THOSE WHO THINK of specialization as a development of our day may be a little startled to find that Herodotus, in *A History of the Persian Wars,* made the following note on a peculiarity of Egyptian ways:

> "Medicine is practiced among them on a plan of separation; each physician treats a single disorder, and no more: thus the country swarms with medical practitioners, some undertaking to cure diseases of the eye, others again of the teeth, others of the intestines, and some those which are not local."

And physicians of today who decry the tendency of laymen to prescribe medical treatment for one another ("Take some of these capsules, Gladys; they cured me and you're welcome to those left in the bottle") may find wry amusement in Herodotus' observation on medical practice in Babylon at the time of Cyrus:

> "... the following custom seems to me to be the wisest of their institutions. They have no physicians, but when a man is ill, they lay him in the public square, and the passers-by come up to him, and if they have ever had his disease themselves or have known anyone who has suffered from it, they give him advice, recommending him to do whatever they found good in their own case, or in the case known to them; and no one is allowed to pass the sick man in silence without asking him what his ailment is."

S. I. ROLAND, M.D.

Treatment of Chronic Discoid Lupus Erythematosus With Quinacrine

BERNARD L. RHODES, *M.D.*, and MANUEL F. ALLENDE, *M.D.*, San Francisco

• Twenty-five patients with chronic discoid lupus erythematosus were treated with quinacrine hydrochloride for periods of two to six months. Twenty-one had satisfactory results.

ALTHOUGH one of the most widely used textbooks of medicine[1] speaks of "the benign disease known to dermatologists as chronic discoid lupus erythematosus," the disease can hardly be considered benign by dermatologists who know of the extensive disfigurement it can cause, who are cognizant of studies which indicate that many patients with this disease show some evidence of systemic involvement, and who occasionally observe a case in which the discoid lesion disseminates into the systemic form. Indeed they are constantly on the watch for an effective form of treatment.

Late in 1951, Page[7] reported excellent results obtained with the use of quinacrine hydrochloride. Soon thereafter the authors (and several other groups of investigators[2, 10, 11, 13]) started using this form of treatment.

METHODS

Twenty-five patients who had chronic discoid lupus erythematosus of six months' to 41 years' duration were treated. The youngest was 16 years of age and the oldest 70; 16 of them were between 30 and 50 years old. Seventeen were women, eight men. All were white except for a patient of Mexican-Indian descent. All but one had been treated previously with one or several of the following: Bismuth, gold, crude liver extract, quinine, iodine, vitamin B_{12}, ultraviolet light, x-ray, sun protection and CO_2 snow. The patients served as their own controls since past treatment had been extensive and unsuccessful.

Before treatment was started the patients had basic laboratory examinations consisting of determination of blood sedimentation rate, blood cell count, and urinalysis. The latter two were repeated at two-week intervals during treatment. None had gross evidence of systemic involvement.

The patients were instructed to take 100 mg. of quinacrine hydrochloride (as Atabrine®) three times a day for two to three weeks, then 100 mg. daily until satisfactory results were obtained.

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RESULTS

Twenty-one of the 25 patients showed satisfactory improvement, seven of them having complete clearing of lesions. The remaining four did not improve. Lesions usually started regressing at the end of two or three weeks. Improvement persisted in 12 patients for four to six months (the time of most recent observation) after cessation of treatment. Three patients had relapses following exposure to sunshine and all improved again after treatment was resumed. These results confirm those reported by other investigators and are in accord with opinions expressed by many dermatologists in informal discussions held during the last meeting of the American Academy of Dermatology and Syphilology. It was not known at that time that this method of treatment had been successfully used in Bulgaria[8] and Russia[9] early in World War II.

COMMENT

There is little question in the minds of the authors that quinacrine hydrochloride is the most effective agent available at present for treatment of chronic discoid lupus erythematosus. The mechanism of action is unknown, although it may be connected with the affinity of quinacrine for keratinous structures.[6] In the present series the side effects of treatment were not serious. Some patients complained of nausea and diarrhea, which may be alleviated by taking the drug with sodium bicarbonate after meals. The pigmentation is definitely disfiguring, but this is only of cosmetic importance and it vanishes a few weeks after cessation of treatment. More serious complications—hepatitis, aplastic anemia, psychoses and cutaneous eruptions—occurred during World War II when quinacrine was used to suppress malaria in the Pacific command. However, the incidence varied between 1 to 1,000 and 1 to

2,000 in persons taking quinacrine, and in practically all cases the complication occurred after several months of daily ingestion of the drug.

In the reports in the literature on the use of quinacrine for lupus erythematosus, one case of anemia from use of the drug was noted in the Sawicky series[10] and one case of drug eruption in the Wells series.[13] One case of anemia and one case of lichenoid eruption in subacute lupus erythematosus have come to the authors' attention (not, however, in the series here reported upon) and in both the condition was reversible. A case of fatal aplastic anemia attributed to Atabrine is mentioned in the 1952 Yearbook of Dermatology and Syphilology.[12]

Although these complications are rare they point to the fact that this is not an ideal treatment for a disease in which toxicity or hypersensitivity are believed to play a part and in which patients have a spontaneous tendency to anemia. The follow-up periods have not been long enough in any of the reported series to know how many patients will have relapse and how soon after cessation of treatment, or whether they will continue to respond to treatment after several relapses. Moreover, it is not known how many cases will progress to dissemination. Therefore, patients receiving quinacrine must be observed extremely carefully for long periods with repeated physical and laboratory examination.

Other therapeutic agents are being investigated at present, including chloroquine[3] which is less toxic and non-staining. The injection of compound F into the lesions, as advocated by Goldman,[4] seems to be quite promising. This might be combined with the oral administration of quinacrine. However, until more data become available on this form of treatment, quinacrine seems to be the treatment of choice for chronic discoid lupus erythematosus at the present time, particularly for patients with multiple lesions.

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Exophthalmos

Certain Endocrinological Aspects

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• The substance isolated from the anterior pituitary and responsible for the induction of thyroid hyperplasia in the tadpole (TSH) is not invariably found in increased amounts in the blood of patients with exophthalmos. The blood concentration of this substance is inversely related to the level of thyroid activity. Thyroid extract, pituitary irradiation and adrenocorticotropic hormone have not been shown conclusively to alter the course of exophthalmos.

PROTRUSION OF THE EYES has been noted in association with hyperthyroidism from the time of the original definition of that disease. As yet the exact cause of this ocular deformity has not been discovered; its appearance in the absence of thyroid disease and after the cure of hyperthyroidism is now well established.[11] Three principal theories have been advanced: First, that exophthalmos is the result of excessive quantities or abnormal types of thyroid hormone; second, that it results from an excessive amount of sympathetic nervous activity; and third, that the eyes are deformed by the action of certain secretions of the anterior pituitary gland.

The first theory has been discarded, so far as primary importance is concerned, for three reasons: The failure to reproduce the disease experimentally by feeding large amounts of desiccated thyroid to animals; the often increasing degree of exophthalmos seen when the thyroid gland is destroyed, blocked or removed from patients with hyperthyroidism; and the appearance of progressive exophthalmos in patients with no manifestation of thyroid disease. Whether the thyroid gland is necessary for some sort of triggering or supporting role is not yet known. Thus, it is odd that almost never is progressive exophthalmos seen in spontaneous myxedema.

The theory that exophthalmos is of neurogenic origin received strong support about twenty years ago and even had the semi-official blessing of an editorial in the *Journal of the American Medical Association.*[7] In certain animals, stimulation of the cervical sympathetic system will cause a mild and apparently asymptomatic protrusion of the eyes. Nothing approaching progressive or severe exophthalmos has been seen in these experiments, and it is doubtful if the mechanism described as necessary for such forward propulsion of the eyeball can be found in the human eye.[18] The role of the sympathetic nervous system in clinical hyperthyroidism is probably confined to the production of a widening of the palpebral fissure.[8, 14]

The possible role of the pituitary has been much more widely stressed in recent years.[4, 6, 9, 13, 19] In experiments similar to those previously mentioned, in which the feeding of thyroid extract did not produce exophthalmos, the administration of an anterior pituitary extract rich in thyrotropic action caused definite exophthalmos in guinea pigs.[13] Exophthalmos could be produced by that means even after thyroidectomy in these animals. Since those experiments, great interest has been expressed as to the nature and action of the thyrotropic hormone from the anterior hypophysis.[1, 6]

Thyrotropic hormone (TSH) is one of the six well-defined tropic hormones of the anterior pituitary gland. Like all the other tropic hormones of this gland, it is a protein. All the physicochemical data on TSH indicate that its molecular weight is small, around 10,000.[25]

Because of its protein nature and minute concentration in body fluids, TSH (like the other pituitary tropic hormones) cannot be measured or detected by chemical means, but must be determined by bioassay procedures. The biological methods that are available depend either upon the direct effect of TSH on the thyroid gland or upon indirect reaction caused by the increased secretion of thyroid hormone by the stimulated thyroid gland. The direct methods have as their criteria of activity: (a) alteration in histological appearance of the thyroid gland, such as increase in the cell height of the thyroid follicular cells or increase in the number of intra-

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cellular colloid droplets of the follicle cells; (b) changes in the iodine content of the gland; (c) increase in radioactive iodine uptake of the stimulated gland; and (d) increase in weight of the gland following stimulation by TSH.

The indirect methods of assay of TSH involve measurement of effects produced through the mediation of increase production of thyroid hormone by the TSH-stimulated thyroid gland. Such changes include increased basal metabolic rate, increase in protein-bound iodine, and induction of precocious metamorphosis in the larvae of amphibia. The indirect methods of assay are not used because they are not necessarily specific for TSH.

Of the direct methods, the cell height or microhistometric technique has been most widely used in recent years because of the specificity and sensitivity of this bioassay procedure. Test animals used for this assay have been the guinea pig,[16] the one-day chick,[17] and the starved or stasis tadpole.[5] The authors have employed a modification of the stasis tadpole method[20] for the bioassay of TSH. The procedure was chosen because of its great sensitivity. The use of the starved tadpole as the test animal has increased the sensitivity of this method approximately one hundred times over that previously achieved with the one-day chick. As little as 0.0007 J.S.* units of TSH can be satisfactorily measured with the tadpole method. Because of its great sensitivity, this method can be used to detect the very minute quantities of TSH circulating in the blood of patients and laboratory animals. The end point for the assay is the increase in cell height of the thyroid follicle cells induced by the injection of TSH into the bullfrog tapole. The disadvantages of the assay procedure are that it is tedious to perform and time-consuming.

In view of the current prevailing opinion that TSH is the factor that causes exophthalmos, the authors have done a series of studies to further clarify the relationship of TSH to exophthalmos. These studies may be summarized as follows:

1. The injection of thyroid-stimulating doses of TSH did not produce exophthalmos in humans.[21] The parenteral administration of thyroid-stimulating doses of three commercial TSH preparations in 13 patients both with and without thyroid glands did not cause significant increase in proptosis in a time period of from 3 to 22 days.

2. Exophthalmic patients do not have higher concentrations of TSH in the blood than do patients without exophthalmos. TSH bioassays of the sera of 20 exophthalmic patients yielded identical results with serum TSH assay of the sera of patients without exophthalmos.[22] In both groups of patients no TSH was detectable in the serum of those who were euthyroid or hyperthyroid, but definitely measurable amounts of TSH were obtained in hypothyroid patients.

3. Studies on the distribution of labeled TSH in guinea pigs that had had thyroidectomy showed no selective localization of the hormone in the orbital tissues.[22]

4. In careful clinical observation no regression of exophthalmos was noted in patients given thyroid extract therapy to tolerance. Yet it has been demonstrated in hypothyroid patients and in rats without a thyroid gland that administration of thyroid extract or thyroxine completely suppresses the elevated serum TSH levels found prior to treatment.[23]

While these observations do not necessarily disprove that TSH is the causative factor in exophthalmos, they offer no support for this view. There is some evidence that the pituitary hormone responsible for inducing hyperplasia in the thyroid gland may be separate from the substance that brings about exophthalmos.[6, 9] If this is true, then the lack of correlation between exophthalmos and the substance measured in our present bioassay procedure may be explained. The rather scanty evidence offered, to date, of an interrelationship between adrenal activity and exophthalmos deserves further study;[2, 24] at present nothing definitive can be said.

MEDICAL TREATMENT OF EXOPHTHALMOS

The multiplicity of treatments used underscores the fact that none of them is truly satisfactory. Estrogens, androgens, iodides, thyroid extract, pituitary x-radiation, adrenal steroids, hyaluronidase[10] and weight reduction are a few of the many therapeutic devices offered. Thyroid substance, either as thyroid extract or as one of the purified substances such as thyroxine, has been used for a long time. There has never been any evidence that it exerted a beneficial action in the usual doses employed. It is possible that large doses may be helpful. Use of as much as 10 to 20 grains would be worth trying if care were taken. The amount should be enough to raise the metabolic rate, raise the level of protein-bound iodine, and greatly suppress the thyroid uptake of radioactive iodine. Patients with exophthalmos frequently tolerate doses of thyroid extract much larger than do euthyroid patients.

X-radiation of the pituitary gland has been tried repeatedly during the past two decades.[12, 15] Beierwaltes,[3] the most recent exponent, claimed improvement in about two-thirds of patients, a proportion considerably above that reported by earlier investigators. Of five patients so treated by the authors,

*Junkmann-Schoeller unit has a variable definition. In the guinea pig it equals the least amount which when given for four successive days will cause a detectable change in the thyroid acinar cell.

one had pronounced improvement, one benefited slightly and three had no improvement. Further testing and evaluation of this kind of therapy is needed.

The adrenal cortical steroids have been suggested as a therapeutic agent for exophthalmos because of their action on connective tissue, but thus far there is no report of a large series of patients so treated. The authors' experience has been negligible in this respect. For similar reasons the use of corticotropin (ACTH) has been advocated. The authors have treated two patients intensively with corticotropin given intravenously. Enough was used to produce temporary facial deformity ("Cushingoid") yet no change occurred in the exophthalmometer readings.

This rather dreary recitation of therapeutic ineptitude is relieved by the well known fact that probably less than one per cent of the patients with exophthalmos have a problem of such severity as to endanger the eye itself. In the overwhelming majority of cases, exophthalmos tends to stabilize at a certain level, and in many there is spontaneous regression over a period of years. In the final evaluation of any therapeutic device against exophthalmos, there must be a better attempt to define the natural course of the illness.

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Exophthalmos

From the Standpoint of the Ophthalmologist

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• *There are many causes of abnormal protrusion of one or both eyes, the most common of which is imbalance of the glands of internal secretion. Among other causes are a variety of tumors that originate behind the eye or that extend to that location from other parts in the body. Infections can extend to the orbit behind the eye from the neighboring structures such as the paranasal sinuses. Infection may also extend to the orbit from distant areas by way of the blood and cause exophthalmos.*

DETERMINATION OF THE CAUSE and treatment of exophthalmos is one of the most difficult problems confronting ophthalmologists.

Because the orbit is essentially a closed vault, except for the eye, the cardinal symptom of retrobulbar, space-occupying lesions is proptosis. There are a great variety of benign and malignant tumors that may occur in the orbit. They can be best classified according to (1) the age of patients in whom they develop and (2) their position of growth and extension in relation to the muscle cone.

The primary orbital tumors of infancy and childhood include hemangiomas, gliomas of the optic nerve, dermoid tumors, teratomas and various benign and malignant tumors of mesenchymal origin.

Gliomas of the optic nerve obviously occur within the muscle cone and cause protrusion of the globe without lateral or vertical displacement. Such neoplasms arise from the glial cells of the optic nerve and/or from the cells of the nerve sheath. A glioma may arise as a fusiform thickening of the nerve within the orbit or the optic foramen, or within the prechiasmal portion of the nerve; and it may grow, usually slowly, posteriorly and anteriorly. Although gliomas usually are regarded histologically as benign, they are clinically malignant in that they may cause optic atrophy and consequent blindness and they may extend posteriorly to invade the brain. Gliomas also bring about enlargement of the optic foramen and distortions of the pituitary fossa that are discernible radiologically. Surgical removal by the intracranial route, unroofing the optic canal and/or orbit, with subsequent enucleation anteriorly, is the treatment of choice.

Hemangiomas occur in the same age group and within the muscle cone. They, too, may cause enlargement of the optic foramen. They permit compressibility of the globe and often extend sufficiently anteriorly so that their presence is indicated by discoloration. In young persons they are usually radiosensitive.

Various congenital tumors, including teratomas and dermoid tumors, while usually occurring as epibulbar masses, may grow retrobulbarly and cause exophthalmos. They arise outside the muscle cone and therefore may bring about lateral or vertical displacement of the globe. Dermoid tumors are often situated at orbital suture lines and often extend intracranially, a possibility that should always be kept in mind. X-ray films should be taken to determine the possible presence of bony dehiscence, and the ophthalmologist and neurosurgeon should collaborate in the surgical treatment.

Undifferentiated sarcomas of the orbit are among the most malignant neoplasms occurring in childhood. Their origin is obscure, their growth rapid, and they spread early and extensively. The least malignant of this group are rhabdomyosarcomas. Immediate exenteration followed by irradiation is the treatment usually considered best. Some observers, however, believe that irradiation effects temporary control by fibrosis and encapsulation. If it does, there is some basis for irradiation first, then excision.

There are numerous orbital tumors that occur in adults. Hemangiomas are common. They are unilateral, usually nonmalignant, are often encapsulated and may frequently produce intermittent exophthalmos that can be accentuated by jugular compression and dependent position. They may be confused with meningiomas because of their tendency to calcify and to cause hyperostosis of the orbit. They are often of the cavernous type, and although usually roentgen-sensitive, they may be resistant because of their intervascular fibrosis.

Meningiomas may arise from the optic nerve sheath or from the dural extension along the orbital

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walls, or they may invade the orbit from adjacent structures. They early produce papilledema and optic atrophy, often impair ocular motility and produce osteoplastic hyperostosis in most instances. While they are usually of the common spindle cell fibroblastic type, sarcomatous vascular forms do occur. Tumors of the latter group and the recently described *hemangiopericytoma* were previously often classified as endotheliomas.

Bony tumors of the orbit cause hyperostosis but are differentiated from meningiomas in that they usually appear in persons less than 20 years of age, whereas the hyperostosis of dural meningiomas does not appear in persons younger than 30.

Mixed tumors of the lacrimal gland obviously occur temporally outside the muscle cone and displace the globe inferiorly and nasally. They often cause decrease in the flow of tears, are locally recurrent and destroy bone. They are usually roentgen-resistant. They have been called mixed tumors because of great stromal as well as cellular change. It is now thought by many observers that only the cellular elements are significant and that the varied stromal changes merely reflect altered degrees and types of tissue reaction to parenchymal trauma.

The various lymphomas form a group of neoplasms that are ill-defined as to origin and are little understood as to prognosis. In contrast to lymphocytic lymphomas that occur as solitary, oval, subconjunctival masses anteriorly, and that are clinically benign, the retrobulbar lymphomata are of all types and may sometimes occur with or give rise to widespread, generalized malignant lymphomas. The differentiation between chronic inflammation, lymphoma, Mikulicz's disease, and "pseudotumor" is possibly a matter of degree rather than of kind. Bone marrow studies and survey of the reticuloendothelial system may establish the diagnosis of lymphoma. "Pseudotumor" is accompanied by pain and in many cases disappears temporarily with the systemic administration of cortisone. All tumors of this group are quite sensitive to x-ray.

Tumors originating in Schwann's sheath, such as neurofibromas of von Recklinghausen, neurinomas, neurilomas and melanomas may be primary in the orbit and produce exophthalmos. In addition there is a great variety of tumors that either extend to the orbit from neighboring structures or occur there by metastasis from distant origins. Such metastatic tumors are not uncommon. The possibility of their presence must be kept in mind and a diligent search made for them in every unexplained case of exophthalmos.

Acute inflammation of the orbit often causes forward displacement of the globe. The most common causes of inflammation are bacteremia, extension of infection from adjacent paranasal sinuses and the teeth, and penetrating and nonpenetrating injuries. These conditions may result in periostitis, osteomyelitis, subperiosteal abscess, occasionally in a true abscess of soft tissue, and at times in thrombophlebitis. Clinically such conditions are characterized by edema and redness of the lids, proptosis, limitation of motion, pain and tenderness, chemosis and induration of the subcutaneous tissues. Usually the signs and symptoms of severe systemic infection with characteristic changes in the blood and in body temperature are present. It is to be remembered that extraocular muscle paresis can acompany such processes. Extension of infection from the paranasal sinuses is the most common cause of this group of conditions.

Vascular abnormalities, congenital anomalies, trauma, infections or neoplastic processes may cause abnormal arteriovenous shunts, which in turn may cause pulsating exophthalmos, perhaps intermittent, often of variable degree. A thrill may be palpated; a bruit may be heard. The central retinal vein may or may not be distended and give evidence of decompensation. The episcleral and conjunctival vessels are usually distended and dilated. Because such lesions are often in the wall of the carotid sinus, extraocular muscle paresis is usually apparent. The vertical muscles are most frequently affected. Depending upon the degree and severity of involvement and the nature of the structures involved, this condition is classified as either the syndrome of the orbital apex or the syndrome of the cavernous sinus. Vascular abnormalities and accidents are, of course, more frequent in the latter category. When the clinical findings are not conclusive, angiography is perhaps indicated, although this diagnostic procedure is not without complications. Complete hemiparesis may result from injections of radiopaque material into the internal carotid artery. Often exploratory craniotomy becomes advisable. The author has observed four cases in which there was abnormal arteriovenous communication within the cranial vault at the apex of the orbit. Signs and symptoms were relieved by ligation of the involved vessels. Proptosis may be intermittent and may be influenced by dependent position and carotid compression. Carotid compression may influence the character of the bruit. Damage to the trigeminal nerve accompanied by disturbances in sensation is not uncommon.

There are numerous systemic lesions that will produce unilateral or bilateral exophthalmos. Disorders of fat metabolism, the so-called xanthomatoses, may do so. Localized xanthoma with deposition of cholesterol may occur within the orbit. More complicated abnormalities of conjugate fat metabolism such as Schuller-Christian disease may produce exophthalmos. It is possible to have localized angio-

neurotic edema, supposedly owing to allergic reaction, that will cause unilateral proptosis.

The most difficult problem concerning exophthalmos is that associated with endocrine dysfunction.

Bulging of eyelids with exophthalmos has been discussed by Rundle and Wilson,[2] who described the mechanism of exophthalmos and lid protrusion. They differentiated bulging from prolapsed fat and from edema. The variations in the plane of the eyelids, whether shrunken, normal or bulged, reflect corresponding variations in degree of orbital filling. The clinical characteristics of bulged lids are well defined and by considering them together with exophthalmometer readings it is possible to differentiate the particular pathologic process involved.

Rundle and Pochin[3] reported upon changes in orbital tissue that are associated with thyrotoxicosis. They concluded that the exophthalmos in Graves' disease is accounted for quantitatively by increase in the bulk of retrobulbar tissue. The increase is relatively greatest in the eye muscles, the fat content of which may be doubled in thyrotoxicosis. The changes are most pronounced in the levator of the lid. Smelser[4] noted that orbital fat contains connective tissue septa that absorb water in instances of thyrotropic exophthalmos. In experiments, when this orbital fat was transplanted elsewhere it still became unduly hydrated in the thyrotropic state. Conversely, fat lower in content of fibrous tissue that was transplanted to the orbit did not invite excessive water to that site and did not produce exophthalmos in experimentally produced thyrotropic states.

Mulvany,[1] in an excellent discussion of exophthalmos, considers two major classifications of the disease: thyrotoxic and thyrotropic. In thyrotoxic exophthalmos, as Mulvany describes it, the orbital contents are normal except for the extraocular muscles, which are pale, thinned and atrophic and show a patchy discoloration caused by an increased amount of interfascicular fat. Exophthalmos, more apparent than real in this condition, results from the retraction of the lid secondary to overstimulation of Mueller's muscle which is innervated by the sympathetic system. Mulvany describes thyrotropic exophthalmos, in which there is an excess of thyrotropic hormone in the serum, as characterized by enlargement of the individual extraocular muscles. This increase in size is accompanied by alteration of color and consistency. The muscles become pale and grayish and their soft structure becomes hardened and rubbery. This change is attributed to fibrosis and edema secondary to lymph stasis. There is inflammatory infiltration by lymphocytes and plasma cells. The pathological process involves the lacrimal gland and nerves. The actual amount of orbital fat may be decreased. The degenerative processes adequately explain the permanent muscle paresis that is often present.

In the author's experience, the division between the thyrotropic and thyrotoxic state is variable and indistinct. Often patients show varying degrees of both syndromes. The problem then is most difficult and at times requires consultation of internist, ophthalmologist and neurosurgeon.

Too often treatment becomes symptomatic and is directed toward the various complications that may arise. Recession of the levator muscles is often necessary to protect the cornea. Suturing of the lids may be extremely difficult. Despite the efforts of the internist and the ophthalmologist, decompression of the orbit may be advisable.

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Exophthalmos

From the Standpoint of the Otolaryngologist

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• *Exophthalmos may be due to an inflammatory process or to tumor formation. Inflammatory processes are most likely to occur in children and young adults. Tumors are the most common cause of exophthalmos in adults.*

Since the advent of chemotherapy and the antibiotics, rarely does orbital cellulitis develop from sinal infection.

Tumors causing exophthalmos are likely to be benign if they arise from the frontal sinus and malignant if they arise from the maxillary and ethmoid sinuses.

EXOPHTHALMOS may be classified as of two kinds, one due to inflammatory process and the other to new growth.

Invasion of walls and the contents of the orbit by infection arising in the paranasal sinuses is not common. The incidence is highest in children and young adults, probably because infection of the upper respiratory tract is common in this age group. The infection spreads from the sinus to the orbit by direct extension or by a phlebitic process through the bony walls. In infants and young children the ethmoid cells are most often the means of invasion, principally because the ethmoid labyrinth, in contrast to the other nasal sinuses, is reasonably well developed at birth and is separated from the orbit by the very thin lamina papyracea. This paper-like bone is likely to have many dehiscences that permit easy extension of the infection into the orbit. In young adults, extension is most often through the thin floor of the frontal sinus into the orbit, and the complication is most likely to occur in beetle-browed persons with large frontal sinuses.

Osteitis occurs first, then edema of the orbit. Suppuration may not take place. When bone necrosis develops, subperiosteal abscess results and it may rupture through the lid or into the orbital contents through the periosteum and cause the formation of orbital abscess or cellulitis. The more severe forms are probably due to septic venous thrombosis and the cavernous sinus or meninges become involved before suppuration can occur into the orbit.[1]

Simple edema of the orbit is marked by orbital pain, a rise in temperature and the appearance of a dusky red color and soft edematous condition of the lids without impairment of motion of the globe and with no change in vision. If a subperiosteal abscess forms, the edema of the lids increases and they become hard, red and tender and the pain increases. Movement of the eyeball is painful and limited. If the abscess ruptures through the frontal floor, the globe is displaced downard and forward, and if the lamina papyracea is the site of perforation the globe is moved forward and outward. When pus forms in the orbit proper, there is very pronounced exophthalmos, extreme chemosis of the conjunctiva, immobility of the globe, interference with vision and septic fever.[1]

Since the advent of chemotherapy and the antibiotics, the inflammatory process rarely develops into abscess formation and drainage of orbital cellulitis secondary to acute ethmoiditis is not often necessary. However, it is recommended that in acute frontal sinusitis with orbital cellulitis, drainage by trephination through the floor of the sinus be carried out early.

BENIGN AND MALIGNANT TUMORS

Benign new growths of the paranasal sinuses that may extend into the orbit almost always involve the frontal sinus and most commonly are mucoceles or osteomas.

A mucocele is a secreting cyst which, through pressure, causes atrophy of the wall of the sinus, permitting the tumor to extend into the orbit and displace the globe. Such tumors usually grow slowly and rarely cause inflammation.

Osteomas are far less common. Over 80 per cent arise from the frontal sinus. When small and contained within the sinus the tumors produce no symptoms. When large they cause pressure atrophy of the wall of the sinus and displacement of the globe. They appear as bony tumors on x-ray films. Mucoceles and osteomas should be completely removed by means of an external fronto-ethmoid operation.

Sarcoma and carcinoma occur with about equal

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frequency in the paranasal sinuses. Sarcoma may develop at any age but carcinoma seldom occurs before the age of 40. The maxillary sinus is the most common site of origin, with the ethmoid cells next. Rarely is the frontal sinus involved. Sarcomas may be of several kinds — spindle-celled, round-celled, lymphosarcoma, giant-celled, osteosarcoma and angiosarcoma. Carcinomas are usually squamous cell epitheliomas, but adenocarcinomas and basal-celled forms also occur. Squamous cell carcinoma is the malignant growth that occurs most often in the nasal fossae and paranasal sinuses. It occurs more frequently in the maxillary sinus than in all the other paranasal sinuses combined.[1]

Malignant new growths of the nasopharynx may spread into the sinuses and invade the orbit. However, this is usually a very late complication.

In the case of malignant new growths beginning in the antrum there is pain in the upper teeth and cheek, followed by swelling in the cheek, anesthesia of the skin and bulging of the naso-antral wall with upward displacement of the orbital contents. Ethmoid growths soon break into both the nasal cavity and the orbit and cause epiphora, diplopia, exophthalmos with a palpable tumor in the orbit, nasal obstruction, foul bloody discharge, epistaxis and severe pain. Metastasis to the upper deep cervical lymph glands, usually on the side first involved, often to both sides later, takes place early or late depending on the degree of malignance.[1] The prognosis is very grave in such cases. If metastasis has occurred the growth is subject only to palliative radiation. With less malignant forms, wide surgical removal offers some hope.

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Insist on National Health Insurance

SPOKESMEN for the AFL and the CIO have informed the House Interstate and Foreign Commerce Committee they still favor a compulsory national health plan as "the only adequate answer to the need of our people." Not all labor witnesses took the all-or-nothing position. A. J. Hayes, president of the International Association of Machinists and former member of the Truman Health Commission, testified: "Since it appears that the chances of achieving the ultimate solution are fairly remote, we will cooperate in any program which is a step in the right direction."

—A.M.A. Washington Letter

Rehabilitation After Laryngectomy

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• Vocal rehabilitation after laryngectomy, using esophageal speech, may be achieved by any patient who can swallow and who has good hearing, provided he is psychologically prepared before operation and begins trying to learn soon after operation.

A patient passes through the early postoperative period much more easily if he knows that within a few short weeks a useful method of communication can be learned.

Instruction by a person who has had laryngectomy has psychic as well as didactic advantages.

THE DIAGNOSIS of carcinoma of the larynx and treatment by laryngectomy when necessary are so well standardized at present that the remaining major problems in dealing with patients with carcinoma of the larynx requiring radical operation are how to make the diagnosis earlier and deal with recurrence, and how to rehabilitate patients adequately after operation.

By earlier diagnosis the 60 to 65 per cent five-year survival rate which now obtains with laryngectomy may be increased, and also the need for total laryngectomy may be lessened if treatment can be started when the lesion is still in a stage at which partial laryngectomy or x-ray may be used with a reasonable chance for success. In spite of the emphasis placed on early diagnosis and cancer detection, all too frequently a patient does not consult a physician until long after that stage.

MENTAL PREPARATION OF PATIENT

Even if total laryngectomy is necessary, however, very satisfactory rehabilitation may be brought about. A person confronted with the advice of laryngectomy is naturally disturbed, not only by the knowledge that he has cancer but also by the fact that the only means of successful treatment entails loss of his voice forever. How will he be able to work and communicate with his family and friends? This is so upsetting that not infrequently the patient is anxious to seek another form of treatment even though the chance of cure be less. Fear of loss of the voice has too frequently caused a patient to accept less than he needed in treatment and has influenced a physician toward conservatism later to be regretted. Laryngectomy is not to be feared to that degree, inasmuch as useful and adequate vocal rehabilitation may be attained in a few weeks with a little work. Esophageal speech can be learned readily by anyone who can swallow and belch under control.

There is nothing new about the phenomenon of esophageal speech. Czermak (as cited by Morrison[1]) in 1859 reported a case of a young girl with complete laryngeal obstruction who spoke with an esophageal voice. Examples of it following laryngectomy have probably been known dating back to the early history of laryngectomy, which was first performed for carcinoma by Billroth in 1873. In 1895 J. Solis-Cohen demonstrated a patient who developed a successful esophageal voice after laryngectomy, and many others have since reported instances of patients who "discovered" useful voices spontaneously. With the advent of more frequent use of the operation and the realization of the need for rehabilitation, there has been considerable emphasis placed on systematized instruction for persons who have had laryngectomy.

Vibration of the soft tissues at the pharyngoesophageal sphincter may be achieved by mobilizing air in the upper portion of the esophagus. Sounds thus appropriated from a false larynx may with practice be refined into speech which is adequate to carry on ordinary communication. A person who is to have laryngectomy should be informed that unaided speech may be developed afterward. He can then meet patients who have made a satisfactory adjustment, and this is often sufficient to give him confidence when he needs it most. Experience has proved that a patient properly prepared mentally for laryngectomy goes through the operation easily and the postoperative period is not marked by depression.

METHOD OF INSTRUCTION

Rehabilitation of a patient after laryngectomy and the teaching of esophageal speech is best carried out by another person who has had his larynx removed and has learned to speak. At the Los Angeles Eye & Ear Hospital the speech class is taught by such

From the Los Angeles Eye & Ear Hospital.

Presented before the American College of Surgeons Sectional Meeting, Los Angeles, March 30-31, 1953.

a person—Dr. Frank O. Brigham. The method developed by Mrs. Mary A. Doehler of the Massachusetts Eye and Ear Infirmary has been found to be very satisfactory. There is great psychological advantage in having an instructor who speaks as his pupils must learn to speak. Not only does the patient learn more quickly, but he is encouraged by example to adjust to his changed condition. Group instruction is also very helpful in achieving adjustment to life without a larynx. It has been found advisable for patients to begin early and to have a few hours of private instruction to develop the rudiments of esophageal speech. They can then continue with private instruction or join the class along with pupils in different stages of progress. Periodic visits to the class after the development of an adequate voice are desirable in order that minor defects in speaking may be corrected and the graduates may have an opportunity to encourage beginners. It is well to include these visits with regular postoperative medical observation.

As soon as the feeding tube is removed and the patient is able to swallow he is ready for instruction. This is usually on the fifth or sixth postoperative day. Progress in actual production of voice may take from several days to weeks but the psychological advantage of an early start is great. By the time the patient is ready to be discharged from the hospital, usually on the tenth postoperative day, he has already had several speech lessons and not infrequently he is able at this early date to say monosyllabic words. Once the knack of swallowing and belching is learned, the sound can be refined into speech, using the tongue, teeth and lips.

A carbonated beverage is often useful in the early stages to give the patient the idea. At first a person must swallow for each syllable but with practice in counting and saying simple combinations of consonants and vowels, polysyllabic words and then sentences are learned. There is a tendency for the beginner to attempt to speak with the reservoir of tracheal air and to breathe in and out as if he had a larynx. Swallowing is sometimes noisy and blots out the voice. However, as facility in swallowing and belching improves, extraneous tracheal noises and audible deglutition is reduced to a minimum and there is rapid progression to satisfactory speech.

A certain degree of relaxation is necessary to develop a satisfactory voice. The beginner is often tense and attempts to swallow without relaxing. He may also try too hard, attempt to speak too loudly and spend all his reservoir of air on one or two syllables. Exaggerated lip, tongue and pharyngeal movements may appear. These tendencies are most difficult to deal with and overcoming them takes constant work and practice.

It is preferable for patients to discard the tracheal cannula in order to develop the best esophageal voice. A special effort is made to shape the tracheal stoma at operation so that it will be widely patent and that after a few weeks the patient will only need to wear a gauze bib over the opening.

Preoperative training has not been considered useful or practical inasmuch as esophageal speech seems somewhat easier after the larynx is removed. Moreover, even if the patient could not learn preoperatively, operation still would have to be carried out.

RESULTS OF INSTRUCTION

Since the beginning of speech rehabilitation instruction at the Eye & Ear Hospital in January 1949, 111 pupils have attended classes, 102 men and 9 women. Two pupils did not have laryngectomy but had severe laryngeal injury. One of them, who had complete laryngeal obstruction following radiation treatment, developed a very satisfactory voice. The other, a 19-year-old boy who had severe laryngeal injury, did not learn well. The age range of the men was from 19 to 78, and of the women from 39 to 73. As might be expected, in general the women learned to speak better than the men. Only one of the women did not develop a satisfactory voice. One woman, 61 years of age, who developed an excellent voice but with pronounced lowering of pitch said that her major problem was that her young grandchildren now called her grandpa instead of grandma. Many pupils reported that their best listeners after laryngectomy were children. Perhaps this can be ascribed to acute hearing and unfettered minds.

Failure to master esophageal speech after an adequate trial occurred in several situations. As might be expected, impairment in hearing presents a serious handicap. There were 8 patients in this classification, and all of them failed to learn. Patients who begin to take instruction too long after operation, either after other methods of communication have been depended upon or after a state of complacency has been reached, have difficulty in learning esophageal speech. Seven patients who tried to learn after periods of 1 to 23 years had elapsed since laryngectomy were unable to do so. In general, elderly patients appeared to learn slowly, and several in the 70- to 80-year bracket did not do well although they had good hearing. Persons speaking a foreign language are naturally more difficult to teach. Two in this category in the present series have not made satisfactory progress.

There can be no doubt that one of the most valuable assets in the learning of esophageal speech is the will to do. Without the desire and the expenditure of effort, all teaching is futile. Some of the patients gave up too easily or just did not try. Perhaps they

were not properly prepared psychologically before operation. Fortunately they can fall back upon artificial speaking devices such as the electric larynx, which are better than nothing.

Excluding the patients who did not learn for one or another of the reasons mentioned, approximately 70 pupils were serious students of esophageal speech. Almost all of them developed a satisfactory and useful voice and made a good adjustment to the changed state after laryngectomy. Some of them probably would have developed a usable voice without instruction, but in all likelihood the teaching and classwork greatly increased the number successfully rehabilitated. Many of the pupils are working at their former jobs in all walks of life and are in general as happy as if they had a larynx. One well adjusted pupil said, "You know, in the past three years I have found out that most people talk far too much anyway."

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Tax Deductions

THE HOUSE WAYS AND MEANS COMMITTEE voted to increase tax allowances for medical expenses by providing that medical costs can be deducted from taxable income if they exceed 3 instead of 5 per cent of adjusted gross income.

Maximum limitations for deductions would be doubled from $1,250 to $2,500, multiplied by the number of exemptions, with a limitation of $5,000 on single taxpayers and $10,000 for heads of families or married couples filing a joint return. These limits also double those in present law. The tax loss is estimated at about $119,000,000.

Under the new proposal costs of medicines and drugs could be included in medical expenses only to the extent these items exceed $50 or 1 per cent of adjusted gross income, whichever is greater. At present it is generally accepted that all medicines and drugs can be included. The government expects by this change to add $40,000,000 in tax money.

Transportation expenses, where travel is prescribed by a physician, could be deducted but not the cost of meals or lodging. A decedent's medical expenses also could be deducted if paid by his estate.

—A.M.A. Washington Letter

Radiation Therapy in Diseases of the Eye

ROBERT S. SHERMAN, JR., M.D., and
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• *Because of the wide variety of x-rays now available, selectivity is possible and important in treatment of diseases of the eye. By the use of short-range radiation, newly developed eye shields and the insulation of the eyelid itself, and by careful angulation of the beam, the desired irradiation can be given where it is needed without injury to surrounding tissues. The authors have found the 50 kv x-ray unit to be the most reliable and adaptable for most circumstances.*

The skin of the eyelid reacts to irradiation more sensitively than other tissues. The cornea reacts with keratitis and sometimes intractable ulceration. The iris, uveal tract and retina are less seriously affected.

At the University of California Hospital irradiation has been found satisfactory for treatment of corneal ulcer, keratitis, pterygium, certain types of conjunctivitis, episcleritis, corneal vascularization, iritis, uveitis, and hemangioma. Irradiation may be of great benefit in absolute glaucoma with pain and blindness. Of 42 patients with carcinoma of the eyelid treated between 1935 and 1946, 27 had no recurrence in five years, 5 had recurrence, 7 died of other causes and follow-up was incomplete on 3. Good cosmetic result was usually achieved. No recurrence has been observed in 22 patients treated since 1946. Irradiation has been used with success in other kinds of cancer of the eye structures.

RECENT ADVANCES in engineering, new discoveries in nuclear physics and the development of more appropriate clinical techniques have resulted in considerable progress in radiation therapy of diseases of the eye, as also a gratifying trend toward more frequent consultation between ophthalmologist and radiologist. The purpose of this paper is to review the physical principles upon which current radiation therapy of diseases of the eye is based, to discuss some of the effects of radiation on the normal tissues of the eye and eyelid, and to report on the clinical experience of treating diseases of the eye at the University of California Hospital.

PHYSICAL AND TECHNICAL CONSIDERATIONS

With various qualities and types of radiation, such as beta rays, low and high energy x-rays, and gamma rays, some degree of selectivity can be achieved in irradiating diseased tissue while protecting normal tissue as much as possible. In the case of superficial lesions, for example, low energy radiation may be applied directly to the involved area, depth of the dose being limited by the range of the particles or photons. Similarly, in radiation to the anterior ocular segment, special equipment directs the x-rays tangentially to the globe, thereby protecting the lens. Conversely, if it is desired to irradiate deeper tissues and at the same time protect the superficial tissues from unduly large amounts of radiation, more penetrating forms of radiation may be applied over a number of fields to converge on the target.

The modern armamentarium includes various sources of beta rays and many forms of x-ray generators. Among the former are the naturally occurring elements of radium,[9] radon,[10, 14, 25] and radium D and E,[31] as well as the artificially radioactive elements, strontium,[7] ruthenium,[7] and phosphorus.[16] Beta radiation is absorbed in from 1 to 5 mm. of tissue; and with energy up to 2 mev. (million electron volts), the dose decreases inversely to the square of the depth of penetration. Hence, the superficial layers of any tissue will receive a high dose, while at 2 and 4 mm. the dose will be one-fourth and one-sixteenth as great, respectively.

*From the Department of Radiology, University of California School of Medicine, San Francisco (Sherman), and the Department of Ophthalmology, University of California School of Medicine, San Francisco (Hogan).

Among the x-ray generators in current use are the superficial therapy units, such as the Phillips 50 kv, the Chaoul 60 kv, the Grenz ray apparatus (Bucky), the newer units equipped with beryllium window tubes, and the higher energy units providing x-rays of a wide range of quality, the half-value layers ranging from 1 mm. of aluminum to 4.5 mm. of copper.[1, 8, 19, 20, 22, 27] Supervoltage equipment has little place in the treatment of eye diseases per se, but is often useful in the management of the deeper seated retrobulbar lesions.

Special Techniques: In treating lesions of the eyelid, or certain structures of the eye, it is imperative to confine the radiation to the diseased tissues. Lead shields, 2 mm. thick, coated with paraffin, and

shaped to the contour of the eye, are suitable; conventional plastic contact lenses coated with lead 1 mm. thick are also satisfactory. Drew and Jones[6] measured the dose to the lens under this protection, using a special tissue-equivalent phantom. The qualities of x-rays studied ranged from 0.1 to 0.7 mm. copper half-value layer. A field of 6x8 cm. was used with the eye shield placed in the center, simulating subpalpebral insertion of the shield. The dose at the significant site (lens) was found to be approximately 5 to 7 per cent of the dose to the unprotected surface. When the shield was placed over the eyelid the dose was increased from 8 to 11 per cent. In the absence of scatter, the direct x-ray transmission through the shield was between 0.5 and 1 per cent. Therefore, the dose of radiation to the sensitive regions of the eye would be due almost entirely to scatter. Drew and Jones concluded that the subpalpebral method of insertion of the shield is the most effective method of protecting the globe.

Walton[29] recently described a technique of limiting the x-rays to the superficial tissues of the anterior segment of the eye by the use of a special applicator which directs the beam tangentially to the anterior surface of the eye. The mounting is so arranged and shielded that the lower surface of the applicator tube lies in the same plane as the central axis of the x-ray beam, thus cutting off the lower half of the field and providing an upper portion with a sharply defined lower edge. The accuracy of the alignment is checked through a periscope cone. The fall-off in dosage across the cornea from the temporal to the nasal side obeys the inverse square law closely. When so small an amount of tissue is irradiated the effect of scatter on the dose can be disregarded. Walton found that for the average cornea 12 mm. in diameter the fall-off was less than 10 per cent, and no scatter to the tissues beyond the plane of the limbus was detectable. He also described a method designed to give a maximum dose on the retina while avoiding the lens. A modification of the frequently used 90° angle technique, it consists of directing the x-ray beam to the globe from the temporal and nasal side at a 45° angle to the sagittal plane. The dose received by most of the retina is approximately 150 per cent of the surface dose except in nasal and temporal portions, where the radiation is received from only one beam and is about 95 per cent of the surface dose. The point of maximum dose is on the vitreous, where supposedly it does no harm. If this technique is properly carried out, the lens receives neither direct nor appreciable scattered radiation.

Martin and Reese[17, 23] described still another method of delivering large doses of radiation to the posterior aspect of the globe in the treatment of bilateral retinoblastoma. This procedure is used when one eye has been enucleated, a condition which, incidentally, facilitates beam direction. Circular portals about 2.5 cm. in diameter are used, fitted with special cylinders to assure accuracy of beam alignment. (It was felt that larger portals would be highly injurious to the cornea, lens, and conjunctiva.) Two portals have been designated: (1) a temporal portal lateral to the outer canthus, and (2) a nasal portal on the opposite side of the bridge of the nose, the beam being pointed contralaterally and slightly backward.

TABLE 1.—*Depth dose data for superficial therapy*

Physical Factors	Filter	Dose in Roentgens: In Air	At Surface	To Cornea (0.1 cm.)	To Iris (0.3-0.32 cm.)	To Mid-lens and Uvea (0.5 cm.)	To Vitreous Body (1.0 cm.)	To Peripheral Retina (2.0 cm.)	To Central Retina and Optic Nerve (2.5 cm.)
50 kv, 2 ma,	0	100	104	90	65	52	32	13	9
4.04 cm. tsd,	1 mm. Al	100	108	95	79	69	47	26	18
1.0 cm. diam. field*:	2.5 mm. Al	100	109	98	85	74	53	31	23
50 kv, 2 ma,	0	100	107	92	68	53	34	14	10
4.04 cm. tsd,	1 mm. Al	100	110	99	82	72	50	26	20
2.4 cm. diam. field*:	2.5 mm. Al	100	112	103	87	78	57	34	25
50 kv, 2 ma,	0	100	104	81	54	41	21	6	4
2.0 cm. tsd,	1 mm. Al	100	107	95	70	59	34	12	9
1.0 cm. diam. field*:	2.5 mm. Al	100	108	99	78	68	39	16	10
50 kv, 2 ma,	0	100	106	86	64	49	23	8	5
2.0 cm. tsd,	1 mm. Al	100	109	90	71	52	36	15	10
2.4 cm. diam. field*:	2.5 mm. Al	100	111	94	73	62	40	18	13
100 kv, 10 ma, 30 cm. tsd, 2.5 cm. diam. field†:	1 mm. Al	100	106	104	94	86	68	48	42
Sr^{90}‡:			100%	41%	9.1%	1.2%			

*Philips Metalix Corporation Contact Therapy Apparatus Technical Data.
†Glasser, Quimby, Taylor, and Weatherwax: Physical Foundations of Radiology, Paul B. Hoeber, Inc., 1949.
‡See Reference 7.

Table 1 indicates how the variation in technical factors affects the dosage to parts of the eye. More detail is given in Table 1 for the 50 kv unit because the authors have found this unit to be the most reliable and adaptable for most circumstances. However, theoretical advantages have been claimed for other units and applicators in the treatment of superficial ocular lesions, and no doubt they may be superior in special circumstances. Figure 1 illustrates the dimensions referred to in Table 1, while Chart 1 shows comparative depth dose data for four different qualities of radiation.

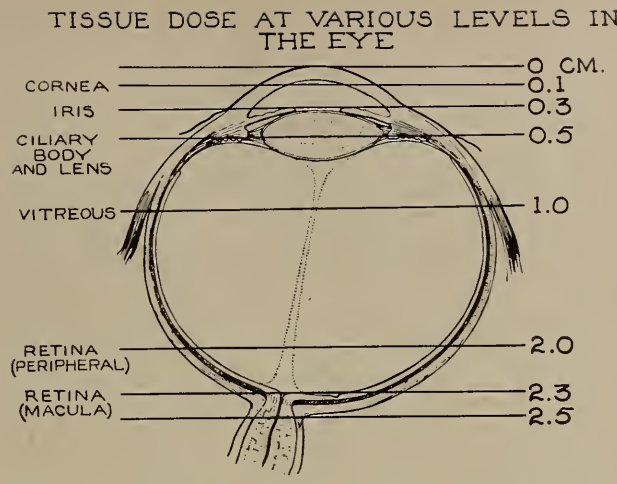

Figure 1.—Tissue dose at various levels of the eye.

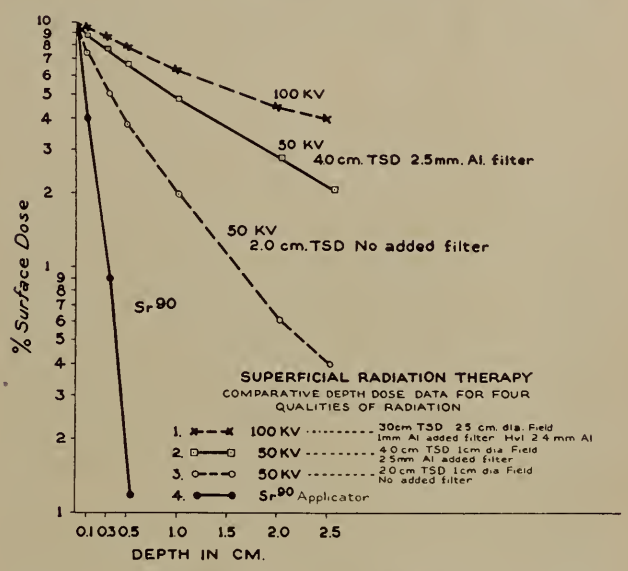

Chart 1.—Comparative depth dose data for four different qualities of radiation.

EFFECTS OF RADIATION ON THE NORMAL STRUCTURES OF THE EYE

The biological effects of radiation on the eye have been reviewed in detail by Warren,[30] Desjardins,[5] Cogan,[3] Hunt,[12] Reese,[23] and others. Also, recent experimental work by Poppe,[21] Von Sallmann,[28] and Hughes and Iliff[10] has added to the knowledge obtained from clinical observations.

Reese[23] described a sequence of stages of reaction in various ocular structures following extremely large doses of radiation: "Superficial punctate keratitis, pannus formation over the lower third of the cornea, extension of the keratinized half of the lid margin over the gray line toward the conjunctiva, xerosis of the conjunctiva and cornea, and, finally, entropion of the lid margin, symblepharon and contraction of the palpebral aperture."

Eyelids: The skin of the eyelid reacts in the same way as that of the rest of the body except that it is more sensitive, probably because of the thinness of epidermis. When treatment is given in daily fractions over three weeks or more, as in the case of cancer therapy, erythema increases as treatment progresses. Moist epidermitis may develop if the dose is sufficiently high, but usually heals within six to eight weeks after treatment, with complete epithelization. Residual atrophy of the skin often develops. This depends on the total dose delivered. With small doses, there is temporary loss of the cilia, but with large doses, such as are used to treat cancer, this effect is usually permanent. Atrophy of the tarsus has been reported as causing widening of the palpebral aperture. Another effect which has been noted is disappearance of the firm elastic tissue along the lid margin that makes it soft and pliable. Later effects are depigmentation, which is more frequent, and patchy pigmentation and telangiectasia, occurring occasionally.

Conjunctiva: Conjunctival tissue, like most mucous membrane, is quite sensitive to radiation. The degree of reaction depends on the total dose as well as the time over which it is given. At times the reaction consists of mild edema, hyperemia, and epiphora. Occasionally, following intense treatment, there is pronounced conjunctivitis accompanied by photophobia and lacrimation.

Cornea: The cornea is relatively insensitive to small doses. However, with larger doses a definite corneal reaction is to be expected, essentially that of superficial keratitis. With x-rays of conventional energy range, doses from 4,000 to 6,000 r cause keratitis to develop in several weeks, the time depending on the fractionation rate. The lesion may be limited to superficial epithelial keratitis, but the deeper layers are often involved, and an intractable ulcer may result. Even when frank ulceration does not develop, the keratitis may persist for months, with severe photophobia and epiphora. Frequently xerosis follows, presumably owing to radiation atrophy of the lacrimal and mucous glands.

Iris: Proliferation and migration of the pigment-containing epithelium of the iris have been observed

by Reese,[23] who noted an increase in the number of clump cells, an appearance of pigment dust over the surface of the iris, and an appearance of pigment deposits on the posterior surface of the cornea. He further observed an atrophy of the pigment-containing epithelium of the iris, permitting the light to pass readily through it. However, the iris and the uveal tract are not greatly affected by usual therapeutic doses.

Retina: Cogan[3] stated that x-rays have relatively little effect on the retina. He quoted Hoffmann as stating that thickening of the arteries and chromatolysis of the ganglionic cells have resulted from roentgen radiation, and further stated that retinal changes perhaps occur more frequently than described. He cited a case in which occlusion of the central retinal vein was noted six months after the administration of 4,000 r. Retinal plication has been observed after extensive radiation.

THERAPEUTIC CONSIDERATIONS

Nonmalignant Lesions of the Eye and Its Adnexa: Many inflammatory lesions reportedly are benefited by radiation; the literature is voluminous (extensively reviewed by Desjardins[5] and others). In the authors' experience, however, only a few conditions respond sufficiently well to justify the use of radiation. Radiation should be used only when it is the best treatment available, and late complications should be avoided by keeping the dose as low as is compatible with a satisfactory result.

As previously mentioned, there are many ways in which ionizing radiation may be administered. In recent experience the authors have found x-rays generated by 50 or 100 kv satisfactory for most purposes. Radon bulb ophthalmic applicators and radioactive strontium applicators* have not been used at the University of California Hospital.

The findings here reported cover cases treated at the University of California Hospital from 1935 to 1952. Recently certain forms of conjunctivitis have been cured with compound F, and such diseases as episcleritis and recurrent catarrhal infiltration of the cornea have been reported as responding well to topical cortisone. Further evaluation will be necessary to prove whether these agents are more efficacious than x-rays.

Corneal Ulcer: Most patients were referred because of failure to heal or respond to a variety of treatments. From 1942 to 1952, ten patients were treated.

The lesions were first reported from a month to four months prior to x-ray therapy. In most instances treatment was given with 100 kv x-rays (HVL 1.04 mm. Al); 30 r to 50 r (air) every 5 to 7 days for 3 to 4 treatments. The total dose in most cases was 200 r (tissue dose) in two to four weeks. The results were satisfactory in seven of the ten patients, healing the ulcer and relieving pain.

Episcleritis: Only one patient was treated. The lesion had existed for about four years, with frequent intermittent episodes of acute pain. With 100 kv x-rays (HVL 2.4 mm. Al), 3 treatments were given in 15 days, a total of 300 r (tissue dose). There was marked improvement with almost complete subsidence of the lesion. Five months later an exacerbation occasioned a second course of treatment (300 r tissue dose); to date there has been no recurrence.

Keratoconjunctivitis: Between 1947 and 1949 three patients were treated. One of these patients was to have a corneal transplant and, because of existing inflammation, was given preoperative treatment. With 100 kv x-rays (HVL 2.4 mm. Al), a total of 750 r (tissue dose) was given through the closed eyelid in 6 treatments over 15 days. The condition improved, and no flare-up was noted following operation.

In the second case (bullous keratitis, keratectasia, and secondary glaucoma), the patient was also treated with 100 kv x-rays (HVL 1.04 mm. Al). A total of 200 r (tissue dose) was given in 12 days, in 4 treatments. Immediate subjective improvement was noted, but later results are not known since the patient did not return for follow-up examination.

In the third case (keratoconjunctivitis with corneal infiltration and ulceration), 100 kv x-rays (HVL 2.4 mm. Al) were used. The left eye received a total of 100 r (tissue dose) and the right eye, 30 r (tissue dose). The lesions were reported improved except for slight residual scarring.

Pterygium: It has been the authors' policy to use radiation therapy only for pterygia of the fleshy, vascular type, for those which recurred after operation, and those in which progression was noted. In the past five years, six patients have been treated. The lesions were all located medially and were found to have been present from two months to ten years. Treatment was given with the 50 kv unit. The usual total dose to tissue was approximately 500 r given in 5 treatments in about 9 days. The results generally were satisfactory; i.e., either the progress of the pterygium was arrested, or regression took place. In one patient recurrence was noted after two years.

*Friedell[7] has advocated the use of the Sr^{90} ophthalmic applicator in a number of conditions, all treatments being given by direct contact in a dose of 325 reps in one minute approximately once a week to a total of approximately 1200 reps for most lesions (superficial tumors of the lids and conjunctiva, vernal conjunctivitis, anterior segment tuberculosis, vascularization of cornea, and corneal ulcers). In a personal communication, Friedell pointed out that the present dosage schedule is considerably higher. He stated that he delivered from 600 reps to 1200 reps per treatment at weekly intervals, for total doses as high as 5000 reps to 8000 reps wherever necessary. Also, he pointed out that there are differences as great as 50 per cent in the ratings of different applicators.

Corneal Vascularization: From 1946 to 1951, nine patients were treated. In most of these, the vascularization followed corneal transplants necessitated by acid burn, corneal curettage for precancerous melanosis, atopic keratoconjunctivitis, corneal opacities, or scarring following smallpox. The interval between operation and x-ray treatment varied from eight to 56 days, although most patients were treated within two to three weeks after operation. In most instances, 50 kv x-rays were used. The total doses varied from 500 r (tissue dose), given in 5 treatments in 10 days, to 1,500 r (tissue dose), in 12 treatments in 15 days. Six patients were improved; i.e., either the vessels were obliterated or the spread inhibited.

Vascularization in the Region of the Anterior Chamber: Three patients with this condition have been treated since 1945. In two, vascularization followed operation for a cataract, while in the third the cause was unknown. The 100 kv x-rays were used in one case, while the 200 kv x-rays were used in the other two. From 1,000 to 1,600 r (tissue dose) were given in 9 to 14 days. The treatment resulted in obliteration of the blood vessels.

Epithelization in the Anterior Chamber (following cataract extraction): From 1944 to 1948, five patients were treated. Either 50 kv, 100 kv, or 200 kv x-rays were used, and the number of treatments ranged from 4 to 15; the number of days over which treatment was given varied from 7 to 18. An average total tissue dose of 1,000 r was administered. The results were poor.

Uveitis, Iritis, Iridocyclitis: Between 1942 and 1950, 12 patients were treated who had these conditions. Three were treated with 50 kv x-rays and 8 with the 100 kv x-rays (HVL from 1.04 to 3.4 mm. Al); the total tissue dose varied from 40 r to 600 r; the number of treatments varied from 1 to 5; and the total time varied from 1 to 21 days. Eight were definitely improved. In general, it is recommended that 30 r to 50 r be given at weekly intervals for a total of 3 or 4 treatments.

Cavernous Hemangioma of the Eyelid: Six lesions were treated between 1945 and 1951. Five cases involved the upper eyelid, one involved the inner canthus. Five patients were three to six months of age, and one was six years old. In two cases, 100 kv x-rays were used (HVL 2.4 and 3.4 mm. Al); in two, 50 kv x-rays; in one, radium plaque, and in one radioactive phosphorus (on blotting paper). The more penetrating radiation was used on the deeply seated lesions. A wax-coated lead shield was used to protect the eyeball when indicated. The total tissue dose was less than 500 r in all cases but one in which, for an extensive lesion, 750 r (tissue dose) was necessary. Usually one or two treatments sufficed, but in some instances, additional therapy was required. In all cases regression of the lesion was observed.

Hemangioendothelioma: The patient was a male infant aged 7 months. The lesion involved the lateral third of the left upper lid and had previously been treated by partial excision. With 50 kv x-rays a total of 3,600 r (tissue dose) was given in 10 days. The lesion subsequently disappeared. There was faint residual pigmentation but no deformity of the lid. Three years later, there was still epilation of the lateral half of the lid but no recurrence of the lesion.

Coats's Disease (Exudative Retinitis): A 13-year-old boy had a lesion of three months' duration. There was partial blindness with retinal detachment and also new vessel formation and chorioretinitis. With 100 kv x-rays (HVL 7.0 mm. Al) 16 treatments were given in 28 days, a total of 800 r (tissue dose). The result was poor, and three months later the eye was enucleated.

Von Hippel's Disease (Angiomatosis of Retina): One patient was a girl aged 15 years. The disease was bilateral. In 1941, 1,000 kv x-rays were used to apply 2,200 r to the lesion in 17 days; a second course of 2,200 r was given two years later with the 200 kv x-ray. In 1943 it was noted that sight was lost in the right eye (detached retina), but the left eye was intact. Follow-up at intervals of two and twelve years showed the vision and fundus changes in the left eye to be the same.

The second patient, a boy aged 7, was seen in 1946. The lesion was of 9 months' duration. With 200 kv x-rays (HVL 1 mm. Cu) 700 r were delivered to the retina in 4 days. One year later, 350 r were given in 7 days. The patient did not return for further observation.

Retinitis and Retinitis Proliferans: Six patients with this disease were treated from 1948 to 1951. The clinical findings were partial or total loss of vision with retinal or vitreous hemorrhage and occasionally retinal proliferation. In four patients the disease was associated with diabetes mellitus. Two hundred kv x-rays (HVL 1.0 mm. Cu) were used in all but one case; 1,000 r to 2,000 r were applied to the retina in 14 to 28 days. The long-term results were poor, although there was temporary improvement in four instances.

Absolute Glaucoma: Of the 15 patients treated, most were blind and in severe pain. The conditions leading to glaucoma included central retinal vein thrombosis, secondary glaucoma following cataract removal, cataract, iritis, retinal detachment, and diabetic retinopathy; in several cases the causative condition was unknown.

The treatment was given with techniques in which the half-value layers ranged from 0.5 to 1.0 mm. in copper. A dose of approximately 1,000 r in air or

800 r to the tissues was given in 14 to 21 days. The pain was alleviated in 6 patients. In 3, there was only slight improvement. No improvement was noted in three cases, while in the others treatment was incomplete or follow-up inadequate.

Other Nonmalignant Lesions Reported Amenable to Radiation Therapy (not treated at University of California Hospital): Successful treatment has been reported in blepharitis, chalazion, conjunctivitis (follicular, Parinaud's, trachoma or granular conjunctivitis), Mooren's ulcer, pinguecula, corneal opacities (new scars), traumatic injuries (recurrent abrasions and erosions), and acne rosacea keratitis.

MALIGNANT LESIONS OF EYELIDS AND THE GLOBE

Carcinoma of the Eyelid: It is now fairly well established that in malignant epithelial tumors of the eyelid, radiation therapy is one of the treatments of choice. In most instances the lesion can be controlled with good cosmetic result. In cases treated by the authors, results were similar to those reported in recent, more inclusive reviews on the subject by Hunt,[12] del Regato,[24] and Stetson and Schulz.[26]

Treatment was given to 40 males and 24 females whose ages ranged from 20 to 89 years. Table 2 shows age and sex distribution in the series. The duration of disease prior to therapy is given in Table 3. As carcinoma of the eyelid develops slowly, evaluation of results is difficult.

The incidence of various kinds of lesions and the apparent sites of origin are noted in Table 4.

The authors endeavor to obtain biopsies of all lesions to be treated. In 26 cases, however, no biopsy was done because of objection by the referring physician (possible cosmetic defect) and also objection on the part of the patient.

Forty-five patients were treated with 100 kv x-rays (HVL 2.4 to 3.4 mm. Al) at a distance of 20 to 30 cm. from the skin. Doses to the tissues of 4,000 r to 6,000 r were given in a period of 7 to 21 days. The eye itself was protected in the conventional manner with a wax-coated lead shield. It appears that the most cosmetically satisfactory result is obtained by distributing the dose over a period of 18 to 22 days.

Seventeen patients were treated with 50 kv x-rays through an added aluminum filter of 1 to 2.5 mm. at a distance of 20 mm. or 40 mm. The dose to the tissues in these cases ranged from 5,000 r to 7,000 r and was given in 11 to 21 days. Two patients in whom carcinoma of the lid had already invaded the orbit were treated with 200 kv x-rays (HVL 1.0 mm. Cu). One of them died of the tumor (the only instance of this kind in the series).

Of the 42 patients treated between 1935 and 1946, 27 had no recurrence in the five years following treatment. Seven died of other causes before five years and 5 had recurrence within that time. Follow-up was incomplete on 3. Since 1946, 22 additional patients have been treated, and no recurrence has been observed to date.

TABLE 2.—*Age and sex distribution in 64 cases of carcinoma of the eyelid treated at University of California Hospital, 1935-1952*

Age	Male	Female
20-29	0	1
30-39	2	1
40-49	2	3
50-59	8	9
60-69	14	7
70-79	11	3
80-89	3	0
Totals	40	24

TABLE 3.—*Time elapsed before treatment in 64 cases of cancer of the eyelid, 1935-1952*

	Cases
Less than 6 months	11
6 months to 1 year	13
2 to 5 years	19
6 to 10 years	5
11 to 15 years	7
16 to 20 years	4
Time unknown	5
Total	64

TABLE 4.—*Type of lesion and apparent site of origin in 64 cases of carcinoma of the eyelid, 1935-1952*

Cytologic designation	Lower Lid	Inner Canthus	Outer Canthus	Upper Lid	Total
Basal cell carcinoma identified by biopsy	13	9	5	3	30
Basal cell carcinoma diagnosed clinically without biopsy	12	6	5	3	26
Basosquamous carcinoma	1	0	0	0	1
Squamous cell carcinoma (including epidermoid carcinoma)	2	1	3	1	7
Totals	28	16	13	7	64

The most frequent late reactions to radiation therapy consisted of slight atrophy and depigmentation of the skin of the eyelid. In a few patients mild telangiectasia or increased pigmentation was encountered. The lid defect (minimal in most cases) was usually proportional to the size of the tumor or the amount of tissue removed at biopsy. Although epilation of the eyelashes was reported in 8 cases, it is certain that this must have occurred more frequently. Slight ectropion developed in three patients. Complications observed in one instance each were corneal opacity, cataract, obliteration of the lacrimal duct, and adhesions of the lids to the cornea.

Methods of treatment of carcinoma of the eyelid used in the past ten years at the University of Cali-

TABLE 5.—*Treatment used in 39 cases of carcinoma of the eyelid, 1942-1952*

Type of Treatment	Basal	Bas-Sq.	Squam.
No treatment	5	1	0
Curettement and desiccation	5	0	1
Excision or resection	8	0	2
Excision with graft	2	0	0
Excision and x-ray	2	0	0
X-ray	9	0	3
Enucleation and x-ray	0	0	1
Total	31	1	7

fornia Hospital are listed in Table 5. Since 1942 statistics have been maintained from the cases abstracted in the University of California General Tumor Registry, but as the number of cases in each category is still small, an analysis of the results is not yet justified.

Retinoblastoma: The first of three patients, a girl 15 months old, was seen in 1939. The tumor was first noted in the right eye when she was 6 months old and the eye was then enucleated. A similar lesion was found in the left eye when she was aged 14 months, and x-ray therapy was instituted.

Treatment was administered through anterior, lateral, and oblique fields; doses in air were 2,600 r 2,700 r, and 450 r respectively in 37 days. An early reaction was severe epidermitis with marked conjunctivitis and keratitis. At this time an upper respiratory infection occurred with purulent nasal discharge, and the eye became secondarily involved. The cornea became perforated 8 months after treatment. The late reaction consisted of keratitis, blepharoconjunctivitis, scarring, telangiectasia, and shrinking of the globe, resulting in complete symblepharon and total blindness. However, in 1951, 12 years later, the patient was still alive.

The second patient was a girl aged 2½ years. X-ray therapy to the right orbit was given (after enucleation) with the 200 kv x-rays (HVL 1.0 mm. Cu) for a total dose to the tissues of 2,000 r through lateral and anterior ports in 26 days. Follow-up notes indicate that the lesion was controlled on the right, but that a tumor involving the left eye was later treated elsewhere.

The third patient, a female aged 27 years, received treatment to the left orbit (after enucleation) at another institution. She was treated at the University of California Hospital for a metastatic lesion in the frontal bone. With 200 kv x-rays, a total dose to the tissue of 3,200 r was given in 24 days, and temporary arrest was effected.

A more extensive account of radiation treatment of retinoblastoma has been published by Martin and Reese.[17]

Carcinoma of the Cornea: A male patient, aged 76 years, was treated in 1947 with 5,000 r of 50 kv x-rays in 23 treatments in 29 days. The lesion disappeared. The patient died four months later of other causes.

450 Sutter Street (Hogan).

GLOSSARY

half-value layer (HVL): The thickness of any particular material necessary to reduce the intensity of an x-ray or gamma ray beam to one-half its original value; the figure is usually given as a measure of the intensity of the ray.

kilovolt (kv): One thousand volts.

ma: Milliamperes.

mev: Million electron volts.

roentgen equivalent physical (rep): The amount of ionizing radiation which will result in the absorption in tissue of 83 ergs per gram.

target-skin distance (tsd): The distance between the focal spot of the target of the x-ray tube and the patient's skin at the point of entry of the x-ray beam, usually measured in centimeters.

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Scientific Program for Doctors on Hawaiian Trip

THE HAWAIIAN MEDICAL ASSOCIATION has announced a scientific program for physicians who will take part in the American Medical Association's 13-day Hawaiian Holiday Tour which will follow the annual A.M.A. convention in San Francisco next June 21 to 25.

The party will leave San Francisco aboard Pan American Airways Strato-Clippers and United Air Lines Stratocruisers at 11:45 on the night of Friday, June 25—the closing day of the convention—and arrive in Honolulu early the next morning. The party will stay at the Royal Hawaiian Hotel on Waikiki Beach.

The return trip, scheduled at 4 p.m. on July 3, will be made on the luxurious Matson liner, SS. *Lurline*, which will dock in Los Angeles on July 8.

All of the reservations are being handled for the A.M.A. by William M. Moloney, general agent, Room 711, 105 West Adams Street, Chicago.

—A.M.A. Secretary's Letter

An Evaluation of Obstetrical Analgesia

HARRY S. FIST, M.D., Los Angeles

• Relief of pain and safety of mother and child are fundamentals in obstetrical analgesia. Elimination of those drugs which are ineffective or dangerous is the best guide to proper medication. Morphine, codeine, or similar opium derivatives should be avoided as they depress fetal respiration. Barbiturates have the same fault, despite their popularity.

Demerol in small dosage is safe and effective. Scopolamine yields excellent results with safety. Magnesium sulfate potentiates and reinforces the action of scopolamine and involves no danger. This combination of drugs may be used by any competent general practitioner in the home or hospital.

OBSTETRICAL ANALGESIA should keep pain at a minimum and avert fatigue and shock yet not interfere with the ability of the patient to cooperate in delivery; and the method should be safe when used by the average general practitioner. It must control pain during the first stage of labor and the beginning of the second, anesthesia being added during the actual expulsion of the child and repair of the perineum.

Progressive muscle relaxation as advocated by Grantly Dick Read is one step toward relief of pain in labor but it cannot replace the action of the drugs modern science has provided.

Factors other than the choice of drugs influence the condition of mother and baby at delivery. The infant may be affected by prematurity, congenital deficiency, uncleared respiratory passages, umbilical cord blockage, birth pressure and the trauma of difficult or rapid forceps delivery, version or breech extraction.

Anoxia causes irreversible changes in the fetal brain tissue[26] and is the chief cause of stillbirths and neonatal morbidity and mortality.[16] Drugs which increase anoxia must be avoided.

Herewith, a brief resume of some of the drugs used for analgesia:

Morphine, a powerful analgesic agent that depresses the central nervous system, is especially dangerous in obstetrics, for it interferes with the initiation of fetal respiration. Morphine given to the mother narcotizes the fetus in about 30 minutes and the effect usually lasts three or four hours.[25] Babies delivered less than four hours after administration of morphine are limp and livid and reflexes are absent. Twenty minutes of resuscitative efforts restore reflexes in slight degree only. Cyanosis and apnea persist as long as eight hours. Recovery takes eight to twelve hours. Carbon-dioxide inhalation helps recovery, but this drug should be administered only for momentary periods.[8]

Most clinicians agree that morphine or its derivatives should not be given if labor is to terminate within three hours or if the infant is premature.[27] Since length of labor cannot be foretold, morphine is contraindicated. It is the least safe of the analgesics, and its use has been almost discontinued.

Codeine resembles morphine but is less nauseating and less constipating. While it causes only one-fourth as much respiratory depression as is caused by an equal amount of morphine, the dose required for analgesia is four times as great.

Dilaudid is ten times as analgesic but only four times as somnefacient as morphine. In adequate dosage it depresses the respiratory reflexes almost as much as does morphine. It has been reported to have little depressant effect.

Pantopon has the same action as morphine, and in equivalent doses causes the same respiratory depression.

Meperidine (Demerol®) is a synthetic drug with properties related to the atropine and morphine compounds. It has very little depressant action and is therefore more desirable for use in obstetrics. Given early, Demerol provides psychic sedation through its analgesic effect, thus reducing excitement and enhancing amnesia.

Although it depresses respiration a little, Demerol-scopolamine has been given intravenously during labor with good results.[3] The vagodepressive action of Demerol gives it spasmolytic effect.[22] In analgesic potency it is midway between codeine and morphine. It does not weaken uterine contractions or prolong labor. It differs from morphine in that it relaxes smooth muscles. Demerol in doses of 100 mg. or less may be considered one of the safer drugs. However, when the mother also receives barbiturates, neonatal asphyxia increases.

Presented before the Section on General Practice at the 82nd Annual Session of the California Medical Association, Los Angeles, May 24 to 28, 1953.

Barbiturates are soporific, not analgesic. In the absence of pain, they tend to cause sleep within half an hour. Large doses in the presence of pain cannot be depended upon for sedation and are likely to cause delirium and restlessness.[6]

Sodium pentothal and other barbiturates induce excitement; they have low analgesic power and, owing to restlessness of the patient, increase the hazard of laceration. When they are used, more nursing care is needed.

Barbiturates, since they depress the higher nerve centers, especially those of respiration, decrease the rate and sometimes disrupt the rhythm of breathing.[9] They pass freely through the maternal circulation and the placenta, causing fetal somnolence, flaccidity and bradycardia.[7] Given to a mother near the end of the second stage of labor, they interfere with the initiation of infant respiration almost as much as does morphine. Narcosis in the child following the use of pentobarbital sodium persists as long as eight hours postpartum. A combination of pentobarbital sodium and morphine causes more respiratory depression than does either given alone.

In deep barbiturate narcosis the inhalation of carbon dioxide does not stimulate respiration.[30]

In experiments on animals it was noted that predisposition to shock was greater when barbiturates were given than when other drugs were used.[20]

When barbiturates are given beforehand, the depression of respiration may be serious if labor is prolonged or extensive operation is necessary.[25] Repeating the dosage time after time is especially dangerous. Intravenous administration of barbiturates is by far the most dangerous method, as the amount needed for anesthesia is half to three-fourths the fatal dose.

Giving barbiturates after ingestion of food tends to cause vomiting and resultant aspiration pneumonia, pentobarbital sodium being the worst offender.[11] Edema of the lungs is also a frequent complication. Barbiturates diminish reflex responses and are contraindicated when the patient has infection of the upper or lower respiratory tract.

Barbiturates cause a decrease in prothrombin in the blood of mother and child.[5] It has been suggested that to prevent hepatic damage, carbohydrates and protein be given with barbiturates, and fats restricted. Previous sensitization is a positive contraindication to barbiturates in labor.

Barbiturate poisoning is marked by excitability followed by coma, pronounced decrease in blood pressure and depression or paralysis of respiration. Antidotes, such as picrotoxin, are directed mostly toward overcoming respiratory depression.

Scopolamine is the best amnesic available. It is safe and it provides psychic sedation and a dry unobstructed respiratory tract. It prevents the carotid sinus syndrome of vagal type characterized by bradycardia, lowered arterial tension and decreased pulse pressure. It relieves bronchospasm and laryngospasm. It combats cortical respiratory depressants.[28] It dilates the pupils and accelerates the pulse but induces no change in fetal respiration or in other fetal vital functions.

When given with morphine, scopolamine has the harmful action of morphine. When it is given alone, however, the few infants who are moderately asphyxiated are readily resuscitated and respiration thereafter is maintained without difficulty.

Scopolamine in doses much larger than are recommended for twilight sleep has no hazardous effect on blood pressure or respiration. There is no pharmacologic evidence that scopolamine adds to fetal asphyxia.

For years Van Hoosen administered scopolamine with no ill effects although she gave as many as nine doses of 0.6 mg. each during 24 hours of labor. She reported: Soft parts relaxed; acute pain absent; first stage shortened; mother's strength conserved; delivery of the head facilitated, resulting in less laceration; better milk secretion; and absence of shock or fatigue. Hemorrhage was rare and convalescence rapid.[29]

Ever since the "stable" scopolamine has been available, restlessness has not been a problem and the so-called "idiosyncratic response" to scopolamine is a rarity.

Magnesium sulfate, given in doses of 2 cc. of 50 per cent solution to each injection of 0.6 mg. of scopolamine, is synergistic and greatly quiets the patient.[2]

Under scopolamine, the patient sleeps between pains or talks quietly, sometimes picking imaginary objects out of the air. The throat and mouth are dry and the face flushed, and the pulse may be rapid. The patient is conscious and can bear down when necessary. Amnesia is complete and the patient is rested on awakening. No cyanosis, asphyxia or fetal mortality may be ascribed to the drug. Labor is shortened and the loss of blood is minimal.[14] Uterine contractions are usually increased and bearing down is automatic when the head of the infant is on the perineum.[24] Scopolamine is a safe, efficient and highly desirable drug for the induction of analgesia.[17]

Magnesium sulfate was used experimentally in 1905 for induction of anesthesia in various kinds of animals. Doses of 1.5 gm. per kilogram of body weight, in 25 per cent solution, were injected subcutaneously. No excitation was observed in any of the experiments. The animals could be operated

upon without any sign of pain or resistance although they were still able to move about somewhat.[18]

In 1915 it was reported that when magnesium sulfate and scopolamine were given together, there was true potentiation of the action of each, the analgesic effect was increased and restlessness was lessened.[13]

Magnesium sulfate has been used successfully as a powerful sedative in tetanus, chorea and other motor excitation. It has been given intravenously in fairly large doses in the treatment of eclampsia. The author has given fifteen injections daily of 20 cc. of 10 per cent solution, with no demonstrable ill effects. Irving[12] reported that he gave 10 to 20 cc. of 50 per cent solution intramuscularly every four to six hours in treatment of eclampsia. Owing to the local anesthetic action of magnesium sulfate, intramuscular injection causes very little discomfort.

Magnesium sulfate has comparatively little effect on the heart. It lessens excitability of the vagus. Intravenous injection lowers the blood pressure, mainly through vasodilatation. It causes no fetal depression and is safe for obstetrical use.

Paraldehyde is fundamentally similar to alcohol in action. Its hypnotic effect is stronger and occurs sooner. The sleep it induces is normal. Irritating to the mucous membranes of the throat and gastrointestinal tract, it causes vomiting in many cases. Given rectally, it is irritant to the rectal mucosa and is often expelled. It has been given intravenously. It increases the pulse rate but does not have cardiac depressant effect on mother or baby. When given with morphine it is quite toxic. It should not be given with sodium amytal or pentobarbital, for they are respiratory depressants. If given early, paraldehyde often causes uterine inertia. In late labor, pressure of the head of the baby on the perineum causes so much restlessness in patients that have been given paraldehyde that restraint often is necessary. Necrosis frequently occurs at the site of intramuscular injection. Definite depression of vital fetal functions and delay in the initial postpartum cry have been reported. Pulmonary hemorrhage has occurred in several cases.

Paraldehyde is contraindicated if general anesthesia is to be used, or if bronchopulmonary disease or gastroenteritis is present.

Although fairly successfully employed in some clinics, paraldehyde is not very widely used.

Caudal block is of great merit for relief of labor pain. If it is used throughout labor, additional personnel is necessary. No increase in nursing care is required, however, for caudal anesthesia in the terminal stage, and it is safe and satisfactory for delivery of the baby and repair of the perineum.[10] When used at the end of first and second stage analgesia, it affords very nearly ideal relief of pain. Caudal block should always be administered by an expert. Knowledge of the anatomy and the technique of insertion of the needle is necessary, as is preparation for emergency, such as a fall in blood pressure.

Spinal anesthesia is also of merit for delivery and repair. However, about ten per cent of patients have headache after spinal anesthesia.

Local anesthesia is safe and may be used when delivery is carried out at the home of the patient, with or without forceps. It requires no complicated apparatus, and may even be used during repair of laceration. However, since it lasts only an hour or so, it should not be used for first stage analgesia.

Hypnotism is safe, simple, and fairly effective. It requires a knowledge of the technique. Only about 20 per cent of normal adults can be hypnotized deeply, but a larger percentage of patients receive much relief and the first stage of labor is shortened an average of two hours.[1] It is not very effective unless the hypnotist is in constant attendance throughout labor.

Inhalation anesthesia is not satisfactory during the first stage of labor or for long periods.

Ether is slower in action than nitrous oxide or chloroform, but is safer. It is a heart stimulant. It lessens the strength and frequency of uterine contractions. Anesthesia by colonic infusion of ether is less easily controlled than anesthesia by inhalation, and the method frequently causes proctitis and diarrhea. Patients anesthetized by ether may be restless and delirious. The fetus is somewhat anesthetized by ether from the circulation of the mother.

Chloroform is more widely used in England than in this country. While it is more rapid in action than ether, the margin of safety is not as wide and the danger signals not as forthright. It is a depressant and may cause sudden death or delayed hepatic damage. In the hands of an expert, it may be invaluable for relaxing the uterus but it should never be administered by anyone less than expert.

Nitrous oxide is pleasant for the patient and rapid in action. It should not be given over long periods. Since anoxia occurs if there is not enough oxygen in the inhaled gas and analgesia is inadequate if the proportion of oxygen is too high, it has been suggested that a definite mixture, 80 per cent oxygen and 20 per cent nitrous oxide. be used.

Cyclopropane and ethylene are said to cause little or no narcosis of the infant unless deep anesthesia is used for operative delivery. Cyclopropane, however, depresses fetal respiration and is inflammable and explosive.

Trilene shows much promise. In England it has largely replaced chloroform. It can be administered

by the patient with safety, and the effects on the baby, even after long administration, are slight.[21]

The author's method,[4] first reported in 1930 and used continuously since that time with but slight change, is as follows:

When contractions are regular and strong, inject the following drugs deeply into the buttocks with a 5 cc. syringe, using precautions against intravenous injection: Demerol, 100 mg., scopolamine hydrobromide (Burroughs Wellcome) 0.6 mg., magnesium sulfate 50 per cent solution, 2 cc., and Synkayvite, 10 mg. Half an hour later inject: Scopolamine hydrobromide, 0.3 mg. and magnesium sulfate 50 per cent solution, 2 cc. Repeat this second dosage hourly as needed. The Demerol may be omitted if pains are weak or delivery is imminent.

Sideboards should be placed on the bed to keep the patient from rolling out during sleep. The patient should be closely watched and at intervals should be urged to urinate.

When the head of the baby is on the perineum and dilation is complete, oxygen inhalations should be started and anesthesia given for the period of delivery and repair. Caudal block, spinal anesthesia or other methods may be used.

With this regimen the patients are quiet and somnolent and amnesia is good. Cervical dilatation is normal. Uterine contractions are not decreased. Excitement is rare. Since none of the drugs used depresses fetal respiration, the babies cry spontaneously; rarely is resuscitation needed. Gentle "milking" of the trachea removes any thick mucus that may be present.

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Anogenital Moniliasis

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• *Thirty cases of anogenital moniliasis were studied. Only five followed oral use of broad spectrum antibiotics. Although anogenital pruritus commonly follows the use of such drugs, it is rarely proved to be moniliasis, which is clinically diagnosed by symptoms of intertriginous denudation with satellite vesicopustules or the presence of cheesy, grossly detachable plaques. The diagnosis may be confirmed by microscopic observation of delicate hyphae and clusters of spores, or of chlamydospores on corn meal agar.*

One per cent aqueous gentian violet, 0.1 per cent gentian violet jel, or locally applied mercurials are the most effective forms of treatment, but effort must also be directed against predisposing factors (obesity, hyperhidrosis, oral or local use of broad spectrum antibiotics, diabetes and pregnancy).

CANDIDA ALBICANS, the causative organism of anogenital moniliasis, is a normal inhabitant of the gastrointestinal tract. Certain factors may permit overgrowth of the organism. Recently the disease has received renewed attention because it may result from the use of antibiotics, which by killing off competitive organisms permit C. albicans to multiply rapidly.[6, 9, 13, 17] Anogenital pruritus is the commonest dermal reaction to antibiotics.[12]

Since anogenital pruritus following use of broad-spectrum antibiotics is not always due to moniliasis (vitamin deficiency, allergic reaction or primary irritation may cause it), and since recovery of the organism is of course not diagnostic, it is important to recognize the symptoms characteristic of moniliasis: red, weeping, sharply circumscribed lesions in folds of the body, with centrifugal epidermal undermining and satellite vesicopustules, or, in body cavities, curd-like whitish plaques. Itching alone is not a conclusive symptom. Heat, moisture and darkness are necessary for the disease, and it is more likely to occur in diabetes, obesity, pregnancy or hyperhidrosis.

On recognition of the symptoms described, direct microscopic examination should be done with high-power objective and with partially closed substage condenser diaphragm to diminish light on the eye. Cheesy film obtained from the vagina or the anus, or skin scales from eroded intertriginous lesions, are mounted on a glass slide with coverslip, in 15 per cent sodium hydroxide, and gently heated. Fine filaments and clusters of spores are easily overlooked, but the presence of them is diagnostic. Similar material may be cultured on Sabouraud's glucose agar, in which a yeasty colony grows within a week or two and may be transplanted to freshly prepared corn meal agar with a fine spatula, being placed in a deep-cut cleft and covered with a sterile coverslip to exclude air. The species can be identified by chlamydospores which appear within three to five days. In an atmosphere of carbon dioxide, C. albicans can be identified in 18 hours by the growth of a feathery mycelium.[15]

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STUDY

A diagnosis of anogenital moniliasis was made in 30 patients. Typical lesions were present in all. Twenty-three were women, six were men, and one was an eight-year-old boy. The oldest was 70 years and the average age was 41 years. None was diabetic or pregnant. Confirmation was made by direct microscopic examination in 19, by culture and demonstration of chlamydospores in 9, and by both procedures in 2. Five patients had taken broad-spectrum antibiotics by mouth, but the remaining 25 had not taken such drugs. Many persons not included in this study complained of anogenital pruritus after taking antibiotics and were examined with the aid of microscopic and cultural procedures, but without proof of moniliasis being established. In four patients who had anogenital pruritus for many months the diagnosis was not established on repeated culture. There were 75 primary cultures of clinically suspicious lesions. Forty-six of these produced yeasty colonies, and 40 were subcultured on fresh corn meal agar. By these subcultures 11 cases were diagnosed.

TREATMENT

Sixty-eight courses of treatment were given to 30 patients. Twenty-three were cured, clinically and by laboratory determination. Two patients were im-

TABLE 1.—*Data on 30 cases of anogenital moniliasis*

Sex and Age	Treatment	Outcome
Diagnosis confirmed by culture:		
F 33	Gentian violet aqueous and Asterol	Cured
M 51	Mercury (ointment)	Cured
M 55	Mercury bichloride (Merthiolate), Protegel	Failed
M 8	Mercury bichloride, 3% Vioform cream, fatty acids, gentian violet aqueous, Asterol, potassium permanganate 1:5000, Protegel, Diodoquin by mouth	Failed
F 23	Mercury bichloride, Castellani's paint, fatty acids, 3% Vioform cream, gentian violet, Asterol	Failed
M 34[1]	Mercury bichloride	Cured
F 23	Asterol, mercury ointment	Cured
M 47	Asterol unguent	Cured
M 34	Mercury, 3% Vioform cream, Asterol, gentian violet aqueous	Cured
Diagnosis confirmed by microscopic examination and culture:		
F 42	Mercury and fatty acids	Cured
M 40	Mercury, Asterol powder and unguent	Cured
Diagnosis confirmed by microscopic examination:		
F 50	Fatty acids, gentian violet aqueous, mercury bichloride	Cured
M*42[2]	1% silver nitrate solution, gentian violet aqueous, and Zephiran	Improved
F*	Gentian violet aqueous	Improved
M*23	Potassium permanganate 1:5000, gentian violet aqueous, and boric acid solution	Cured
F*[3]	Zephiran 1:1000, hexachlorophene ointment	Cured
F	Mercury bichloride, 3% Vioform cream, gentian violet aqueous	Cured
F*58	Mercury, potassium permanganate 1:5000, Zephiran, fatty acids (Desenex)	Cured
F 48	Fatty acids (Desenex), gentian violet aqueous	Cured
F 26	Mercury bichloride	Cured
F*	0.2% gentian violet jelly	Cured
M*[4]	Potassium permanganate 1:5000, Asterol powder	Cured
F*31[5]	Gentian violet jelly	Cured
F*20	Gentian violet jelly	Cured
F 42	Mercury, 3% Vioform cream, fatty acids	Cured
F 41	Fatty acids (Desenex and K-Y)	Lost
F*50	Zephiran 1:1000, hexachlorophene ointment	Improved
F 70	Nylmerate (mercury), 3% Vioform cream	Cured
F*52	Potassium permanganate 1:5000, Asterol tincture (1:15)	Cured
F*30[6]	Gentian jelly	Failed

Antibiotic effect was noted in six patients: (1) Contact with wife who had same condition after taking aureomycin; (2) Chloromycetin; (3) Erythromycin; (4) Aureomycin or Terramycin;® (5) Penicillin taken orally; (6) Aureomycin.

*Reports contributed by Dr. Frances Keddie.

proved, 4 were not, and 1 patient was lost from observation. No drug idiosyncrasies were encountered, although minor irritations occasionally occurred with each agent more commonly used. Three patients had recurrences of their disease, one six months later and two a year later.

Results may be divided into seven groups: With mercury, gentian violet,[17] benzothiazole (Asterol®),[1, 3, 11] Vioform,® fatty acids,[5, 14] quaternary ammonium base (Zephiran® chloride), and miscellaneous drugs. In two patients results were not obtained with any of these or Diodoquin® and lactobacillus milk given orally plus vitamin B complex given orally and parenterally.

Mercury was used for 18 patients (with 8 cured, 5 improved and 5 not helped). Individual mercurials were employed as follows: Mercury bichloride (1:10,000 solution) applied in compresses 15 minutes twice a day was used for 8 patients (with 3 cured, 2 improved and 3 not helped), Nylmerate® jelly (phenylmercuric acetate) for 5 (with 2 cured, 2 improved and 1 not helped), 10 per cent Merthiolate® (organic mercurial) in calamine lotion on 3 (with 2 cured and 1 not helped) and 2 per cent ammoniated mercury ointment on 2 (with 1 cured and 1 improved).

Gentian violet was used for 10 patients (with 6 cured, 1 improved and 3 not helped), of whom 5 were treated with 1 per cent aqueous gentian violet (with 3 cured, 1 improved and 3 not helped), and 5 with 0.1 per cent gentian violet jel (with 3 cured and 2 not helped).

Benzothiazole (Asterol) ointment, powder or tincture (diluted 1:16) were used individually or in combination on 10 patients (with 3 cured, 2 improved and 5 not helped).

Three per cent Vioform cream was used for 6 (with 1 cured, 1 improved and 4 not helped).

Fatty acids (equal parts of Desenex® and K-Y® jelly, or Naprylate® cream) were used on 4 patients (with 1 cured, 1 improved and 2 not helped).

Seven patients were treated with boric acid compresses or ointment, potassium permanganate compresses, 1 per cent silver nitrate solution, Castellani's paint (a dye), or Protegel® (a mechanical protective), with 2 cured, 2 improved and 2 not helped.

DISCUSSION

No agent will promptly cure anogenital moniliasis. Individualization and patience are necessary. Efforts must be directed against predisposing factors as well as against the organism.[8] Gentian violet is still the best drug, but is messy and obscures the disease process. Mercurials are clean and effective, but there is danger of idiosyncrasy and absorption of toxic amounts. Benzothiazole (Asterol) did not prove to be highly effective in the cases here reviewed, and there is danger of neurotoxicity.[2, 3, 4, 16] Other agents used proved to be of a decreasing order of effectiveness.

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Some Effects of Antibiotics in Surgery

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• *Although surgical mortality has decreased considerably in the antibiotic era, infectious complications still head the list of causes of death after operation.*

The choice of an antibiotic singly or in synergistic combinations should be governed by both the pathogenic organism and the organ involved. Allergy, toxicity and development of bacterial resistance are important limiting factors.

Besides oxygen, antibiotics are indicated in dealing with localized or generalized anoxia as encountered in vascular impairment of intestinal obstruction or in shock.

In acute abdominal conditions meticulous observation is required during the use of antibiotics in order to avoid dangerous delay of operation.

THE IMMENSE LITERATURE that has accumulated on the use of antibiotics contains much discussion of the relative merits of newer antibiotics in relation to preoperative and postoperative treatment. However, little is found on the effect of antibiotics on surgical procedures: How has the effect of antibiotics on postoperative complications — such as pneumonia, peritonitis or wound infections—influenced surgical indications? What is the influence of antibiotics on surgical timing and technique?

These questions will be discussed in this presentation, and the choice of antibiotics under specific conditions will be considered. (With apologies to purists, sulfonamides will be included at times.) Statistics will be but sparingly referred to, since it is impossible to exactly weigh the part played by antibiotics within the many variables of modern management.

EFFECT OF ANTIBIOTICS ON COMPLICATIONS; INDICATIONS FOR USE

Large surgical clinics[11] still report postoperative peritonitis and pneumonia as the chief causes of death. Unquestionably the incidence of these complications has been diminishing in recent years, but the reduction cannot be credited solely to the use of antibiotics. Better preparation of the patient for operation has made operation safer, while better physiological postoperative management has made extensive procedures safer for the patient. Experimental work on animals suggested the use of antibiotics in the presence of vascular impairment, for example, in intestinal obstruction[2, 3, 6, 10] or in hemorrhagic shock.[5] Avoidance of shock during operation, blood replacement, use of oxygen, and replacement of water, sodium and potassium without overdosage are known factors in the improvement of surgical results.

In general it may be said that the reasons for persistence of pneumonia and peritonitis or some other infections are:

1. Lack of correlation between the bacterial invader and the antibiotic chosen. (Studies to determine the sensitivity of the organism should be carried out, and broad spectrum antibiotics and combinations of synergistic antibiotics should be used.)

2. It must be stressed that once pulmonary edema, atelectasis or local inflammatory edema (as in an obstructed bowel) is established, the impairment of circulation through the infected area limits the local concentration of any antibiotic. Also, concentration of antibiotics varies considerably in different organs. This has been called "organ sensitivity" and could better be called "organ accessibility." The antibiotics of choice for access to various areas are listed in Table 1.

Experimental work on peritonitis suggests that crystalline penicillin is superior to procaine penicillin[1, 12] and that aureomycin given intravenously may be toxic in high doses[1] (100 mg. per kilogram of body weight). However, it must be emphasized that no known antibiotic will control a continuous leak from an abdominal viscus.[4] In such cases a treacherous period of initial improvement lasting several days will be followed by sudden deterioration with a flare-up of peritonitis, ileus, and death. This "escape" from antibiotic control can only be prevented by properly timed surgical intervention. Some of the modern day tragedies of surgery are brought about by a false sense of security obtained in the first few days of apparent improvement.

The routine postoperative use of antibiotics after operation, although not uniformly accepted, certainly has reduced the incidence of postoperative wound infection. Antibiotics have at times caused a delay in appearance of some postoperative ab-

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TABLE 1.—*Drugs of choice for dealing with infections in various organs.*

Organ or Site of Use	Drug of Choice
Peritoneum	Aqueous penicillin, streptomycin, aureomycin, Terramycin (erythromycin*)
Liver, gallbladder	Terramycin, streptomycin
Pancreas	Sulfonamides
Bowel	Sulfathalidine, sulfasuxidine Neomycin, streptomycin
Kidney	Terramycin, sulfisoxazole (erythromycin*)
Topical use	Neomycin, bacitracin, tyrothricin, gramicidin D, polymyxin B

*Further evaluation necessary.

scesses for six or eight weeks after operation, and a rise of temperature a few months after operation demands a search in this direction. Other disadvantages of antibiotics are the risk of allergic reactions, sensitization of the patient, secondary infections such as moniliasis after Terramycin or aureomycin, and development of bacterial resistance. Therefore, it may seem better in some circumstances to avoid antibiotics—for example, after simple hernioplasty in a young healthy person. On the other hand, in an old patient with bronchitis or cardiac damage the prophylactic use of antibiotics—say, 100,000 units of crystalline plus 300,000 units of procaine penicillin every 12 hours—is well justified. However, streptomycin should be omitted in prophylaxis since E. coli may develop resistance to the agent within two to three days.

Surgical Technique

It is impossible to see how it can be thought that antibiotics could obviate the need for properly used intra-abdominal drains after operations such as gastric resection or cholecystectomy or in the management of perforated appendix with local or diffuse peritonitis. Antibiotics will not prevent or cope with a duodenal blowout or a biliary leak, and a properly placed soft rubber drain or better suction through a double lumen tube may be life saving.

Giving sulfthaladine, sulfasuxidine, streptomycin, Terramycin, aureomycin or Neomycin by mouth for periods of from two to five days before operation has made colon resection safer. Today's good preparation of the bowel with antibiotics favors the open anastomosis technique and thus reduces the drawbacks of closed anastomosis—bleeding, diaphragm formation, stricture. In the absence of obstruction or edema, antibiotics have supported the trend toward one-stage resection with primary anastomosis; decompressing colostomy seems to be less frequently used.

Surgical Timing

That the preoperative use of antibiotics has influenced surgical timing is best illustrated by current practices in dealing with some of the most common acute abdominal conditions.

Perforated Peptic Ulcer

The use of antibiotics, such as penicillin, probably contributed most to the success of conservative treatment of gastric or duodenal perforations with the suction tube. Antibiotics also have considerably reduced the incidence of peritonitis after primary gastric resection in perforated peptic ulcers; and the low mortality and morbidity attest improved surgical management, with antibiotics playing a vital role. In addition to systemic use of penicillin, as discussed, 1,000,000 units of aqueous penicillin and 1 gm. of streptomycin can be instilled into the peritoneal cavity before closure.[8, 9]

Acute Appendicitis

Of particular value in dealing with a patient who is in poor condition for operation, preoperative administration of antibiotics will allow vital correction of cardiac failure or dehydration prior to operation. However, in appendicitis with perforation, delay should not exceed a few hours. How misleading an apparent initial therapeutic response may be is exemplified in the following case report.

CASE REPORT

The patient, a 9-year-old girl, had had diffuse abdominal pain and fever for five days when first observed. A physician administered intramuscular penicillin daily with some initial improvement. On the fifth day, when examined by the consulting pediatrician and by the surgeon, the patient had temperature of 104° F., symptoms of severe toxicity, nausea and abdominal distention. Operation was carried out immediately. Gangrenous appendicitis with multiple old perforations and local and diffuse peritonitis were observed. Appendectomy was performed and a double lumen drain was inserted behind the cecum. Aqueous penicillin and streptomycin were left in the peritoneal cavity before closure and these antibiotics also were given intramuscularly every six hours. There was profuse drainage through the abdominal tube for three days. Fever continued until bowel function resumed 48 hours after operation. The patient was discharged five days after operation.

This case raises the controversial question whether appendectomy should be performed in the presence of peritonitis. It is hard to see how gentle operation through a lateral McBurney incision could in any way contribute to the spread of infection. Modern antibiotics, lateral incision and postoperative drainage where an abscess is present will permit appendectomy in almost every stage of appendicitis. In some patients with a subsiding appendiceal mass or abscess, operation has considerably reduced the duration of morbidity, hospitalization and disability.

Acute Cholecystitis

In the management of acute cholecystitis, antibiotics can play only a subordinate role since chemical irritation and vascular thrombosis are the primary offenders, with only secondary bacterial invasion. Terramycin and aureomycin are well concentrated in the liver and bile, but the obstructive process prevents their concentration within the gallbladder.

Penicillin may reduce the inflammatory response of the omentum and bring about relaxation of the muscular rigidity and thus bring about conditions indicating improvement yet at times camouflaging silent perforations of a gangrenous gallbladder.

CASE REPORT

The patient, a man 62 years of age, was obese and diabetic. He had had right nephrectomy 18 years previously and wound abscess had occurred at that time.

The history of the present illness was that about five weeks before the patient was first observed by the author he had been admitted to a hospital with a diagnosis of acute cholecystitis. He was treated expectantly with intramuscular administration of penicillin. After ten days the tenderness in the right upper quadrant of the abdomen seemed subsided and the patient was sent home. Three weeks later he again had severe pain in the right upper quadrant and was treated at home with penicillin injections. Five days later the author examined the patient at home and recommended transfer to the hospital where for several more days antibiotics were given and fluids were infused to control severe dehydration. Although gradually the general condition appeared to improve, there was an impression that a mass in the right upper quadrant was enlarging.

To obviate the risk of diffuse peritonitis, operation was done. The gallbladder was covered by a heavy mass of omentum. It was thickened and gangrenous and many abscesses were present. An old subhepatic perforation of the gallbladder contained bile. The gallbladder was also adherent to the stomach, duodenum and adjacent structures. Dissection appeared difficult and hazardous and in order to avoid injury to the common duct only the lower half of the gallbladder was resected, leaving the necrotic wall of the gallbladder lying in the hepatic bed. A soft rubber drain was inserted between it and the liver for drainage and a second double lumen drain was placed into the area of the gallbladder. Postoperatively, suction yielded bile for five days. The patient received 400,000 units of fortified penicillin and 0.5 gm. of streptomycin intramuscularly every six hours. Fluids and insulin were given intravenously. The wound healed rapidly. The patient was discharged nine days after operation.

This case illustrates several points:

1. The timing of operation in acute cholecystitis may be made more difficult through the masking effect of antibiotics used preoperatively.

2. Antibiotics are of considerable value after operation and, along with proper suction drainage, they speed recovery and wound healing.

3. Diabetic persons are more prone to complications of gallbladder disease and therefore should be operated upon early in spite of apparent response to antibiotics.

Pelvic Operations

In pelvic inflammatory conditions antibiotics have made it possible to obtain primary healing during a short hospital stay if perforation of an ovarian abscess indicates operation. Penicillin therapy of salpingitis without operation has led to incomplete restoration of tubal patency and hence to increased incidence of tubal pregnancies.[7] In radical hysterectomy for cervical carcinoma antibiotics have almost eliminated postoperative pelvic cellulitis.

6423 Wilshire Boulevard.

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CASE REPORTS

• Simple Management of Lead Poisoning

Simple Management of Lead Poisoning

JOHN B. FIELD, *M.D.*, *Ph.D.*, Los Angeles

DESPITE INCREASED RECOGNITION of the dangers of exposure and the availability of many methods of protection, lead poisoning is still one of the most important industrial diseases. The conventional therapeutic approach "demands much medical ingenuity," and specific therapy, often necessitating hospitalization, may have to be given for four to six weeks.[4]

In conventional therapy, large amounts of calcium are given at first, frequently by vein, to displace the bone-migrating lead ion. The continuing routine also usually includes magnesium sulfate catharsis, and finally a low calcium regimen to liberate the stored lead.

Several useful medical applications have already been found for the recently developed industrial cationic agents which form strong, nonionizing soluble chelate complexes with divalent and trivalent metals.[1, 6, 8, 9, 13] Ethylene diamine tetraacetic acid (EDTA) has been reported to bring about hypocalcemia and reduced systemic calcium levels in humans and to have no noxious effects. It has been used to dissolve ordinarily insoluble salts such as calcium oxalate, barium sulfate and lead phosphate, and indeed has been successfully used to dissolve urinary calculi.[1, 6] The preformed compound, calcium ethylene diamine tetraacetic acid, possesses the potential of having its calcium displaced by other metals. Results of experiments with animals suggested that the complex would be of potential value in the management of heavy metal poisonings by withdrawing the metal in a soluble excretable form and replacing it with calcium in the storage reservoir. To date an increasing body of information affirms that this new agent is probably the most innocuous specific therapeutic device available in the detoxication of lead and several radioactive ions. Several reports of use of the drug in the treatment of lead and mercury poisoning have already appeared.[2, 3, 7, 10, 11, 12] Following is a case report illustrative of the use of this agent in lead intoxication.

From the Department of Medicine, University of Southern California School of Medicine, Los Angeles, and the Los Angeles County General Hospital.

REPORT OF A CASE

A 32-year-old woman was admitted to the hospital on March 22, 1953, with complaint of generalized abdominal pain that had begun about a month previously and had become progressively more severe until it was of colicky character. It was accompanied by intermittent nausea and vomiting and alternating constipation and diarrhea. All the symptoms became more severe and about March 15 the pain became almost continuous. The patient was unable to eat or sleep, had malaise and weakness and remained in bed. The weight decreased about 10 pounds in several weeks. Several physicians who had been consulted diagnosed several types of "enteritis" and prescribed antibiotics, which were ineffective.

Since July 1952 the patient had been employed part-time at a ceramics works as a sprayer of underglaze.* In January 1953 she took a full-time job elsewhere in the same capacity. In the second job, unlike the first, she was not issued a protective face mask, and a blower used to clear the spray fumes was disconnected because it was "noisy." After several weeks she noted that nasal secretions were heavily coated with the pigment that was being sprayed. When she vomited early in the present illness, she noted that the vomitus contained large amounts of the pigments.

The lead content in a 24-hour specimen of urine† on March 20 was more than 0.5 mg. per liter (normal up to 0.08 mg. per liter) and the amount of lead in the blood was 0.365 mg. per 100 cc. (normal up to 0.05 mg.).

On physical examination the patient appeared to be in acute distress, sitting flexed or upright and clutching the abdomen and moaning. The temperature was 98 degrees F., the pulse rate 90 and respirations 28 per minute. The abdomen was round

*Underglaze as applied to ceramics usually consists of an aqueous suspension of "frit" mixed with silica, a pigment of colored oxides, clay and organic gums. The "frit" is a commercial ground mixture of melted raw materials which usually contains lead, averaging perhaps 30 to 40 per cent but as much as 70 per cent. Although the underglaze spray in its final form may contain no lead at all, usually the lead content ranges from 5 to 20 per cent.

†Analyses to determine the content of lead in the blood and the urine were done in the Spectrographic Laboratory of the School of Medicine, University of Southern California, by the method of Butt and associates. Determinations were done in triplicate. Average deviation on each sample based on reproducibility was less than 4 per cent. (Butt, E. M., Nusbaum, R. E., Gilmour, T. C., and Di Dio, S. L.: The use of the emission spectrograph for the analysis of biological materials, to be published.)

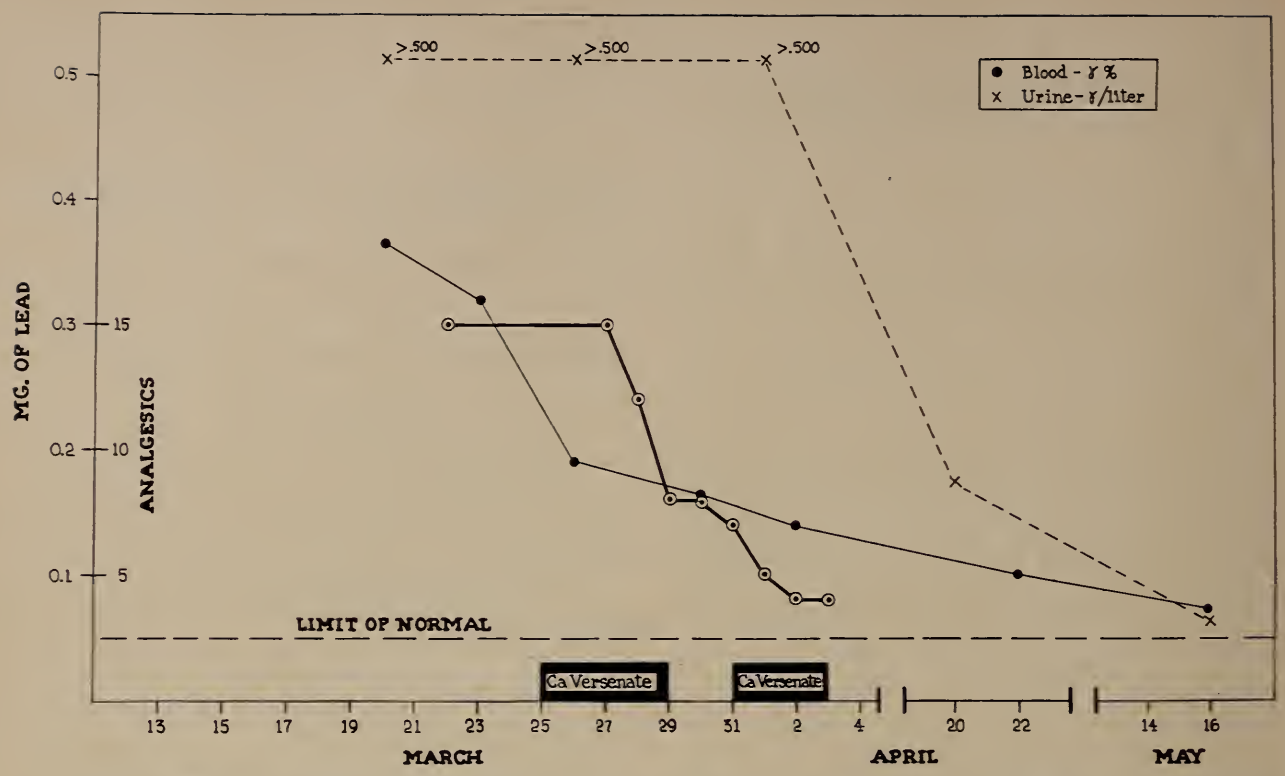

Chart 1.—Effect of intravenous administration of calcium disodium versenate on the content of lead in the blood (mg. per 100 cc.) and in the urine (mg. per liter) of a patient with lead intoxication. The rating of "analgesics" is an expression of the total daily doses of sedatives and analgesics required to keep the patient comfortable.

and soft. Spasm was not noted. There was only mild generalized tenderness.

Laboratory: Erythrocytes numbered 3.8 million per cu. mm. of blood and the hemoglobin content was 8.8 gm. per 100 cc. Leukocytes numbered 10,350 per cu. mm.—62 per cent polymorphonuclear cells, 30 per cent lymphocytes, 8 per cent eosinophils, 0.8 per cent reticulocytes, and 1.4 per cent basophilic stippled erythrocytes. No abnormalities were noted in the urine. Results of chemical studies of the blood were within normal limits. In roentgen studies after barium enema the only abnormality observed was delayed emptying. X-ray films of the chest were normal.

At first, therapy consisted of a conventional regimen of a high calcium diet supplemented with calcium gluconate orally, magnesium sulfate once daily, and atropine sulfate. To relieve the distress and pain, barbiturate sedation was maintained continuously and morphine and codeine sulfate were given alternately, each two or three times daily. On March 25 treatment with calcium disodium versenate (calcium EDTA) was begun‡; 2 gm. in 1 liter of 5 per cent glucose in saline solution was given intravenously over a 6 to 8-hour period. Similar infusions were given on all but one of the next ten days. Within four days after administration of calcium disodium versenate was begun, the patient was symptomatically improved with reduction in pain. The content of lead in the blood decreased rapidly, while the amount in the urine remained high during the phase of increased excretion (Chart 1). She was discharged from the hospital April 3 but, as noted in the chart, laboratory examination of blood and urine was carried out several times thereafter. At the time of discharge a high intake of calcium gluconate and ferrous sulfate was prescribed. By April 18 the hemoglobin had increased to 12 gm. per 100 cc. of blood and by June 6 it was 13.5 gm. The postrecovery course was uneventful save for an episode of acute alcoholism apparently stemming from emotional instability which may have arisen from effects of lead intoxication on the central nervous system.

‡The calcium versenate was supplied by Riker Laboratories, Inc., Los Angeles.

DISCUSSION

The administration of the calcium-binding ethylene diamine tetraacetic acid by intravenous drip has been used by the author in ten cases to reduce the amount of calcium in the serum. Reduction of as much as 50 per cent, to near tetanic levels, has been observed.[5] The amount of calcium to be bound and excreted was easily calculated and verified by examination. No toxic phenomenon other than minor venospastic pain in the canulated vessel was observed when as much as 2 gm. was administered at one time.[5]

The nontoxic nature of the preformed calcium ethylene diamine tetraacetic acid has been emphasized in the several reports of its successful use in

the treatment of poisoning with mercury, lead and other heavy metals.[2, 3, 7, 10, 11, 12] It has been given orally as well as intravenously with good effect.[11]

Since the binding of calcium in the chelate complex is relatively weak, in vitro, the calcium can be displaced by many metals such as lead, cobalt, nickel, chromium and copper. The chelation follows a definite order which varies for given divalent or trivalent ions within the pH of the solution.[10] However, in vivo, the calcium-metal exchange occurs with less uniformity because of active complexing agents in the body which form stronger metal bonds than does the calcium EDTA. Treatment of poisoning caused by lead, cobalt and nickel has been favorably influenced, and it has also been reported that symptomatic improvement was obtained when EDTA was used in mercury poisoning.[10] Other studies in which quantitative determinations were better than in the present case have also shown that the administration of calcium EDTA results in pronounced enhancement of lead excretion and rapid subsidence of the symptoms of lead intoxication.

Thus, the cumbersome and prolonged therapy of the past can now be entirely replaced by the use of calcium EDTA (or calcium versenate) in doses of 1 to 2 gm. daily in an intravenous drip for rapid excretion of the body-stored lead and relief of associated symptoms. The drug can also be administered orally, although the excretion of lead is slower.

SUMMARY

In the treatment of a patient with lead poisoning resulting from exposure to material used in the underglaze of ceramics, a new chelating agent, calcium disodium versenate, was used. It rapidly removed the free and bound lead from the blood.

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For information on preparation of manuscript, see advertising page 2

EDITORIAL

Audio-Digest Foundation

ONE OF THE ROUTINE, unpublicized actions of the C.M.A. Interim Session of the House of Delegates was the approval of the acquisition by the Association of Audio-Digest. This operation has been under way in Los Angeles for some months, on a private basis, and has attracted considerable attention throughout the country.

As originally put together by Jerry L. Pettis, an associate director of public relations for the California Medical Association, Audio-Digest undertook to prepare weekly tape recordings of digested current medical literature. The primary goal was the general practitioner, who was likely to be too busy to read the periodicals coming into his office and likewise too remote to have access to various specialty journals containing items of interest and use to him in his practice.

On this basis, with reading, editing and digesting on a volunteer basis, Audio-Digest has developed a weekly series of tape recordings of one hour's duration, which the general practitioner can play in his home or office. If his time is too occupied for such pursuits during his working or home hours, he can easily convert his tape recorder to plug into the cigarette lighter in his car and thus pick up three or four minutes' digest between home or hospital calls.

On top of the weekly digests, Audio-Digest has started accumulating entire lecture recordings by nationally recognized experts. These have been made available for more specialized audiences.

The normal handicaps of small size, limited working capital and lack of prestige of a private operation influenced Mr. Pettis to offer his idea to the California Medical Association. With the prestige which the Association can lend to this enterprise, it is obvious that its potential will be greatly augmented.

In accepting this gift, the Council of the C.M.A. took steps to organize a non-profit corporation, Audio-Digest Foundation. This is a wholly-owned subsidiary of the Association, the profits of which are to be devoted to medical education or other fields in the structure of the medical profession.

The new corporation will be governed by a Board of Trustees which will at all times consist of the voting members of the C.M.A. Executive Committee. These officers include the president, president-elect, speaker of the House of Delegates, chairman of the Council and chairman of the Auditing Committee. Working under this board will be Dr. Edward C. Rosenow, Jr., who has accepted appointment as editor-in-chief. He, in turn, will be aided by an editorial advisory board.

Audio-Digest Foundation will undertake at once to expand its editorial board with outstanding members of the profession. It will also proceed to develop a library of specialized papers by nationally recognized physicians and teachers. This should lead to an auditory abstract and lecture series of great value. In addition to selling its service, Audio-Digest will sell tape recording equipment and provide copies of tapes for its own use and for others who require tape duplicating. The foundation has access to electronic equipment which makes the duplicating process not only speedy but most economical.

Interestingly enough, the cost factor has been so reduced by the availability of some working capital that a one-hour tape recording, digesting current medical literature, can be produced and sold at a cost considerably below the cost of the tape alone when bought blank at the retail store. When a physician has no further use for his tape, he can erase it and use it over and over again for office dictation.

Audio-Digest Foundation appears to offer a wide and highly flexible field of usefulness. It can be used not only for reporting current medical literature but for communicating between the C.M.A. and the county societies, for postgraduate training, for legislative and other purposes; in short, wherever a clear, concise field of communication is desirable.

It is obvious that under its new sponsorship this activity should grow into ever-increasing usefulness and return a profit which can be devoted to fields strictly in furtherance of better medical training and medical practice.

Another A.M.A. Delegate

AN ELECTION was held at the C.M.A. Interim Session in December to fill an office that did not then exist, and while the occasion engendered a good deal of levity at the time, the result of that election has turned out to be of solid value.

The office was that of an additional delegate from California to the House of Delegates of the American Medical Association, even though at the time of the December meeting it was not certain that the membership of the California association had risen high enough to entitle us to an additional representative. It was known, of course, that membership was close to 12,000, but whether it would go above that level could not be definitely determined until the county societies filed their official reports of membership as of December 31.

Waiting to see was out of the question owing to the fact that A.M.A. delegates must be elected in the calendar year preceding the year in which they begin their official service. Hence the season was rushed a little and an election was held, in subjunctive mood, to choose an official who was, for the nonce, spoken of jocosely as "phantom delegate" and "the invisible man."

Happily the doubt is ended. Official word has assured the C.M.A. of an additional, a thirteenth, delegate to the A.M.A. for 1954. Dr. Paul Foster, elected as delegate, and Dr. Arthur A. Kirchner, his alternate, will serve in the 1954 A.M.A. House of Delegates.

California MEDICAL ASSOCIATION

NOTICES & REPORTS

Audio-Digest Foundation

OWNERSHIP OF A NEW MEDIUM for simplifying and intensifying the individual physician's postgraduate education was taken over by the California Medical Association at the December meeting of the House of Delegates. At that time, a non-profit subsidiary, Audio-Digest Foundation, became an official member of the C.M.A. family.* Reserves from the enterprise will be distributed to the nation's medical schools through the American Medical Association.

The revolutionary format of Audio-Digest, which tape-records medical literature and lectures, was devised by Jerry L. Pettis, associate director of public relations for the C.M.A. The Foundation's Board of Trustees, the same as that governing C.M.A., has appointed Dr. Donald Lum, Alameda, president; Dr. Albert Daniels, San Francisco, secretary-treasurer; and Dr. Edward C. Rosenow, Jr., Pasadena, editor. Pettis has been appointed executive vice-president of the operation. A Board of Editors, an advisory group that will consist of leading physicians representing all specialty groups, is now being established.

Claron L. Oakley is assistant to the editor for the literature digests. William Tobitt is assistant to the editor for the lecture series.

The services offered to the medical profession by this Foundation are these:

1. A weekly, one-hour tape digesting the current medical literature (approximately 1,900 journals) from the standpoint of significance and practical usage. This is designed primarily for the general practitioner and covers all fields of medicine. Physicians in every state of the union are already subscribing to this service.

A series of bi-weekly tape digests that will summarize the most important specialty literature began on January 15. The first of this series will be surgical. Internists will have a similar service available on February 15 and obstetricians and gynecologists on March 15.

2. The second service revolves around a system of tape recordings and synchronized visual slides or film strips. Accumulated from on-the-spot recordings at medical conventions and especially prepared lectures for the Audio-Digest library, this service is designed to bring the top medical names into the living room or office of the busy practitioner, with the original author or lecturer's own voice and illustrative slides. Lecture tapes by the leading professors in the nation's 79 medical schools are now being assembled and will be made available to private physicians, medical schools and libraries, and government medical services. All lecture material will be reviewed each six months to maintain its currency.

Complete subscription information is available by writing Audio-Digest Foundation, 800 North Glendale Avenue, Glendale 6, California.

For additional information, see Council meeting minutes, page 144, and editorial, page 104.

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Proceedings, Interim Session, House of Delegates

San Francisco, December 12 and 13, 1953

Saturday Morning Session

The Interim Session of the California Medical Association was called to order at 10:00 o'clock a.m. in the Gold Ballroom of the Fairmont Hotel, San Francisco, California, on Saturday, December 12, 1953, Dr. Donald A. Charnock, Speaker of the House of Delegates, presiding.

SPEAKER CHARNOCK: The third Interim Session will now please be in order. The first order of business is the report of the Committee on Credentials. Dr. Louis P. Armanino of San Joaquin County.

DR. ARMANINO: Mr. Speaker, a quorum is present. I move that we accept a visual roll call for verification of the constitution of the House.

. . . The motion was regularly seconded. . . .

SPEAKER CHARNOCK: It has been moved and seconded that we accept a visual roll call as constituting the House. Is there any discussion? All those in favor, signify by saying "aye." Contrary? The House is constituted.

I will now give you the reference committees. First of all the Credentials Committee—Dr. Louis P. Armanino, Dr. Ewing L. Turner of Los Angeles, Dr. Francis B. Misner of Colusa.

Reference Committee No. 1: Dr. J. W. Moore, Ventura, chairman; Dr. James B. Graeser, Alameda; and Dr. Dave F. Dozier of Sacramento.

Reference Committee No. 2: Dr. Robertson Ward, Dr. John E. Vaughan, and Dr. Thomas P. Hill.

Reference Committee No. 3: Dr. E. C. Rosenow, chairman; Dr. Helen B. Weyrauch, and Dr. Carl M. Hadley.

Reference Committee No. 4: Dr. Albert G. Miller, chairman; Dr. Thomas A. LeValley of Los Angeles, Dr. Dorothy Allen of Alameda.

The C.P.S. Reference Committee: Dr. Thomas N. Foster, chairman; Dr. Dale E. Barber, and Dr. Paul D. Foster.

If there is no objection to it, this will constitute the Reference Committees. Will you please note where the Reference Committees are to meet. We will make this announcement now and again at the end of the session.

Reference Committee No. 1 will meet in the Artists' Room on the Mezzanine. Reference Committee No. 3 will meet in the Cable Car Room on the mezzanine floor. Reference Committee No. 4 will meet in the 20th Century Room on the Mezzanine. The C.P.S. Reference Committee will meet in the Green Room, which is on the first floor. If any business comes before Reference Committee No. 2 it will meet in the Hawaiian Room on the mezzanine floor. These rooms are available at approximately 2:30 this afternoon.

We wish to announce that resolutions should be, as you well know, put in typewritten form. We would like you to use, if possible, the five copy carbons which are available for everybody. To have the resolutions typed, stenographic service in the C.M.A. office will be available to you for typing if you so desire.

REPORT OF REFERENCE COMMITTEE No. 3

The first order of business this morning is the report of Reference Committee No. 3; Dr. Rosenow reporting.

DR. ROSENOW: Your reference committee is composed of Dr. Helen B. Weyrauch of San Francisco County, Dr. Carl M. Hadley of San Bernardino County, and Dr. Edward C. Rosenow.

This committee has had before it eight resolutions which were introduced at the 1953 Annual Session and were not then regarded as emergency measures requiring immediate action.

This report contains the recommendations of the committee on the items placed before it.

Resolution No. 6, introduced by Lester Lawrence, Alameda-Contra Costa County.

WHEREAS, The doctor's personal economy exists within a general economy based upon business and industrial concepts of capital investments and their amortization, operating and production costs, recognized depreciation tables and other factors of modern accounting methods and principles; and

WHEREAS, Medicine has thus far failed to translate its economy into these terms; and

WHEREAS, Medicine must now make its economy understandable so that it can explain and defend fees as based upon the cost of production and delivery of its services; so that it can insist upon taxes computed in equity with consideration for educational capitalization and its amortization; and so that it can gain recognition for reasonable reserves for retirement based upon tables of normal years of production; and

WHEREAS, Accountants of standing and experience inform us that much of the economics of medicine can be reduced to terms and methods, statements and reports of modern accounting; therefore, be it

Resolved, That the Council of the California Medical Association be asked to retain business analysts and accountants as needed to conduct a study for the purpose of translating into present tax and business

language and reports the economics of the doctor of medicine: and further be it

Resolved, That the initial goals of this study shall be:

1. Establish costs as related to fees.

2. Capitalize the cost of a professional education and the forbearance of income during the educational period, and establish reasonable tables for amortization of these factors.

3. Determine the normal expectancy for years of active practice.

4. Determine minimum retirement funds that should be accumulated and how this cost should be reserved.

5. Establish accounting systems for medicine which can be used to substantiate requests for legislative relief and equity for the doctor of medicine.

This resolution suggests a technique by which information could be made available regarding the economic factors in some of the costs of providing medical care. Inasmuch as the Medical Services Commission has been organized to study this type of problem, we suggest a substitute resolution as follows:

"*Resolved,* That the resolution as presented be referred to the Medical Services Commission for further study."

Your committee recommends that this substitute resolution *do pass*. I move the adoption of this portion of the report.

. . . The motion was regularly seconded. . . .

SPEAKER CHARNOCK: It has been moved and seconded that this section of the report which will refer this resolution to the Medical Services Commission be passed. Is there any discussion? Those in favor will signify by saying "aye" to it. Contrary? It is so referred. Will you proceed?

DR. ROSENOW: Resolution No. 9, introduced by Lyle G. Craig, Los Angeles County.

WHEREAS, The advertising of therapeutic agents in the official journals of the American Medical Association carries great prestige with the medical profession and the public at large; and

WHEREAS, All methods of promotion of any product bearing the seal of one of the councils of the American Medical Association is under control of said Council; and

WHEREAS, Some pharmaceutical manufacturers have failed to take proper cognizance of their grave responsibility in promotion of their products and have tended during the past few years to over-advertise and over-commercialize new therapeutic agents both in official journals of the American Medical Association and through direct mail advertising to physicians throughout the United States; and

WHEREAS, A petition is being presented to the House of Delegates of the American Medical Association in the form of a resolution calling upon officers and committees to exercise great care in the selection of advertising material from pharmaceutical firms which do not strictly conform with the standards and principles of the Association: now, therefore, be it

Resolved, That this House of Delegates instruct the delegates to the American Medical Association House of Delegates to work diligently for the enactment of such legislation as will protect the public and the good name of scientific medicine.

The purpose of this resolution is to alert the A.M.A. to inherent dangers in therapeutic claims. Because of unfortunate accidents resulting in part from the over-commercialization of therapeutic agents, this resolution seems a timely reminder to the A.M.A. Your committee, therefore, recommends a *do pass*. I move the adoption of this portion of the report.

SPEAKER CHARNOCK: Is there a second?

. . . The motion was regularly seconded. . . .

Is there any discussion?

DR. CRANE: At the last meeting of A.M.A. I was privileged to be on a committee to discuss this problem very thoroughly. We had a portion of the A.M.A. management with us that day and I believe they are aware of this problem. They went into great detail stating that as far as the medical profession is concerned there are in the *Journal of the A.M.A.* different discussions relative to the merit of all of these advertisements; they wish that the members of of the A.M.A. would read all of the contents of the *Journal of the A.M.A.* and I believe the A.M.A. is taking adequate steps at this time to overcome any bad advertising, especially in their group. The A.M.A. has a committee that looks over the advertisements for many of the other journals, and it is working on that now. I believe the A.M.A. will come up with some very good and substantial changes in the very near future.

SPEAKER CHARNOCK: Dr. Robertson Ward of San Francisco County.

DR. WARD: Mr. Speaker and members of the House. I feel constrained to talk about this a little because it was I who moved that this not be an emergency resolution at the last meeting of the House of Delegates. I should not have made that motion. It so happened that I was on the reference committee to which this resolution mentioned here was referred in the House of Delegates of the American Medical Association, and I want to tell you that it was an emotional experience that we are seldom called upon to go through. There were four doctors who talked before that reference committee, each of whom had lost a child because of the press clippings of something that was carried in the *A.M.A. Journal* and other journals that are in their advertising plan. And even after they had lost their children by the use of this so-called harmless drug, they still saw ads in the *Journal of the A.M.A.* and other journals that subscribed to that advertising, saying how harmless this drug was. That was the reason it should have been an emergency. I am sure that you

would have been impressed if you had attended the meetings of this reference committee. The editor of the *Journal* was there and members of the various councils that pass these drugs were there, and from here out every attempt is going to be made to publish findings that show the danger of these new drugs just as fast as can be done, in order to prevent similar accidents taking place. It is a rather complicated affair and as far as this resolution is concerned, it has already gone to the House of Delegates of the A.M.A. and has been brought to the attention of the editors of the *Journal*. I am only sorry that I prevented this from being an emergency measure when it came up before, but I thought the House would be interested in the action taken to prevent the acceptance of advertising of things as harmless until they are pretty well proved to be harmless.

SPEAKER CHARNOCK: Is there any other discussion?

DR. ROSENOW: I speak in favor of the passing of this motion.

SPEAKER CHARNOCK: Are you ready for the vote? Those in favor of Resolution No. 9 signify by saying "aye." Contrary? It is so ordered.

DR. ROSENOW: Resolution No. 10, introduced by Logan Gray of San Mateo County.

WHEREAS, The relationship of physician to patient is intimate and personal; and

WHEREAS, The security of the patient is based partly on the feeling that his doctor and his doctor's medical society and association possess an unconfused dignity; and

WHEREAS, The prestige of physicians, county medical societies, state associations, and the profession nationally has suffered because of an occasional premature publication of controversy between one segment of the profession and another over matters of major policy; and

WHEREAS, This taking the profession's problems to the public over the head of the profession has the effect of inviting a reaction against all physicians, to the eventual detriment of the patient; and

WHEREAS, The press and periodicals cannot be blamed, since they can only utilize such material as they receive; now, therefore, be it

Resolved, That the C.M.A. adopt a policy which precludes publication of controversial issues by small or large groups of physicians, until such matters of important policy be decided by full and orderly deliberations of the county and state societies and that the medical profession be urged to settle its own problems without ever pitting one faction against the other in the public press and journals.

While the committee recognizes the embarrassment caused the profession as a whole by thoughtless or misleading statements made by individuals, the importance of freedom of speech and of the press transcends all other considerations. Your committee therefore recommends a *do not pass*.

Mr. Speaker, I move the adoption of this section of the report.

SPEAKER CHARNOCK: Is there any discussion? You will bear in mind that voting a "yes" vote will kill Resolution No. 10. Are you ready for the vote? Those in favor of the report of the committee will signify by saying "aye." Those opposed? It is so ordered. This section of the report is adopted.

DR. ROSENOW: Resolution No. 13, introduced by Allan Hinman of San Francisco County.

WHEREAS, National defense must continue to be paramount in the minds of the medical profession; and

WHEREAS, The science and profession of medicine is absolutely essential in national defense; and

WHEREAS, In the past, until very recently, national military medical personnel needs have been met on a voluntary basis; and

WHEREAS, A state of affairs has come about whereby national military medical personnel needs must be met by draft; and

WHEREAS, Any system of drafting medical officers cannot be as valuable in defense as a voluntary system; and

WHEREAS, Any medical reserve officer program heretofore instituted has not given the reserve officer an even break in his training to assume military responsibility; and

WHEREAS, There has never been decent remuneration for the time consumption, the responsibility, and the wear and tear of the conscientious medical reserve officer; and

WHEREAS, It is the duty of the American Medical Association to point the way to a long term medical defense policy; therefore, be it

Resolved, That the House of Delegates of the California Medical Association instruct its delegates to the American Medical Association to introduce and foster such resolutions as will tend to achieve the following:

1. Institute a long-term policy in the American Medical Association for the purpose of improving the position of the medical reservist.

2. Set up committees and other necessary permanent personnel to carry out proper negotiations and liaison with government, American Legion. and otherwise to carry out such policy.

3. To expressly institute in this policy a demand for a fair share of the staggering defense budget to foster and subsidize a voluntary medical reserve corps sufficiently adequate to take care of national needs in time of war.

We are amending the resolution by deleting item 3 and by altering item 2 to read as follows:

2. To set up committees and other necessary permanent personnel to carry out proper negotiations and liaison with government, American Legion and others."

Your committee recommends that this amended resolution *do pass*. Mr. Speaker, I recommend the adoption of this section of the report.

SPEAKER CHARNOCK: It has been moved and seconded that you accept this resolution as amended. There is discussion from Dr. Parker of San Francisco County.

DR. PARKER: Mr. Speaker, members of the House. This committee moves to delete—referred to the budget—item 3. However, there are other things that will be lost if we accept the committee's substitute as is. I therefore submit the following resolution for the committee's resolution. It would read as follows:

Resolved, That the House of Delegates of the California Medical Association instruct the delegates to the American Medical Association to introduce and foster such resolutions as will tend to achieve the following:

1. Institute a long term policy in the American Medical Association relative to the Medical Reserve components of the Services, including the National Guard.
2. Make an extensive study of the possibility of so increasing the attractiveness of the Medical Reserves and the National Guard that their enlargement will help eliminate the future danger of discriminatory draft of medical personnel.
3. Aid the services in establishment of realistic military educational programs which will prepare the medical reservist for more usefulness in national defense in time of war.
4. Eliminate inadequacies of the promotional system for medical reservists.
5. Set up committees and other permanent personnel to carry out a study and to institute the proper negotiations and liaison with government and others.

Mr. Speaker, I move the adoption of this substitute resolution.

SPEAKER CHARNOCK: We will vote upon this substitute resolution first. You are now voting on the substitute resolution. Those in favor will signify by saying "aye." To the contrary? The chair is in doubt. Those in favor of the substitute resolution will please stand. All right, will you be seated, please. Those who are opposed to the substitute resolution, will you please stand? Thank you. The substitute resolution has won. We will now pass upon this section of the report as amended by the substitute resolution. Is there any further discussion on this? Those in favor of this report as amended will signify by saying "aye." To the contrary? It is passed. You will proceed.

DR. ROSENOW: Resolution No. 14. This was introduced as an emergency resolution at the Annual Session and was re-referred to the committee for further study by the House of Delegates. This was introduced by Allen Hinman of San Francisco County.

WHEREAS, The term "free choice of physician" is in regular usage to designate an unrestricted right of a patient to choose as his physician anyone in practice at the time the physician is needed; and

WHEREAS, Organized medicine in California has gone to great efforts to preserve the fullest right of free choice of physician in its own Blue Shield Plan and California Physicians' Service; and

WHEREAS, There is a certain grave danger to the right of good medicine when closed panel groups maintain that they are giving free choice of physician on the basis that there was a choice when the prepayment contract was sold, and that the patient has a right to choose his physician from the members of the closed panel; therefore, be it

Resolved, That the House of Delegates of the California Medical Association define the term "free choice of physician" as that unrestricted state between patient and physician in which the patient would have absolute freedom to choose a legally qualified physician or surgeon from all of those qualified to practice who are willing to give service under the conditions established, with no reduced benefits in the event that the beneficiary is treated by a physician who is not a member of his plan; and be it further

Resolved, That selection of a physician from a closed panel group at the time of purchase of the prepayment plan, before the need for treatment of illness or injury, does not fulfill the requirements of this definition; and be it further

Resolved, That this House of Delegates approve the above definition of free choice of physician and as the only one acceptable in the California Medical Association: and be it further

Resolved, That the Council of the California Medical Association is hereby instructed not to permit any California Medical Association approval, implied or otherwise, of any individual, group, or corporation dealing in medical services or insurance unless free choice of physician is exercised according to this definition; and be it further

Resolved, That the Council of the California Medical Association is hereby further instructed to use all reasonable effort to inform and instruct the public in the basic tenets of this resolution.

After discussion with many delegates and the Medical Services Commission, your committee wishes to submit the following substitute resolution which would exclude anything not specifically in it. We therefore submit this resolution:

"*Resolved*, That the House of Delegates reaffirm the fundamental public and professional policy that each patient is entirely free to choose the physician to whom, for his own physical and mental welfare, he must reveal intimate, personal confidences without reservation or misgiving and on whose sound judgment his life or well-being may depend."

Your committee further suggests that the Medical Services Commission may well investigate and study the origin and development of the free choice principle, its present value to the public and the degree

to which it is currently accepted in this state by the public and the profession.

Your committee recommends that this substitute resolution *do pass.*

Mr. Speaker, I move the adoption of this section of the report.

SPEAKER CHARNOCK: It has been moved and seconded that the report be accepted as amended with the substitute resolution. Is there any discussion? Dr. Hinman of San Francisco County.

DR. HINMAN: I should like to point out to the House that though this resolution was introduced by the speaker he was not the author of this resolution. Dr. Leon Parker has been behind this resolution. It is a pet of his, and I would also like to point out that the substitute resolution introduced by the committee does not come to grips with the problem. (Applause.)

SPEAKER CHARNOCK: Is there any other discussion? Dr. Sam Sherman.

DR. SHERMAN: Mr. Speaker, members of the House of Delegates. I fully agree with the remarks of Dr. Hinman and I wish to offer to you a substitute resolution which I think covers this subject very adequately, and one for which I do not take any credit at all. The Medical Services Commission made this definition in the last issue of *Rx Reading,* in November 1953. I shall read this definition and offer this as the final resolve of the substitute resolution and that is that the free choice of physician shall be defined as follows:

"The patient should have absolute freedom to choose as his attending doctor any duly licensed physician and surgeon, who is willing to serve him; with no reduced insurance benefit in the event that he is treated by a physician who is not a member of his plan."

SPEAKER CHARNOCK: Is there a second to the substitute resolution?

. . . The motion was regularly seconded. . . .

Is there any discussion on the substitute resolution? You realize that any of these may be referred back to Reference Committee No. 3 or may be referred to the Medical Services Commission. At the present time we will vote on the substitute resolution. Those in favor please signify by saying "aye." To the contrary? It is passed. As this is an amendment to this section of the report we will now vote on this section of the report as amended. Is there any further discussion?

VOICE FROM THE FLOOR (Dr. Hinman): I would like to rise to discuss that it should go back. Here we have a resolution that has been thoroughly studied by this committee for six months and it has heard pros and cons upon it. And now we have the substitute resolution which we consider for about six seconds and then pass. That is an unwise way to conduct business and I would like to move that this portion of this report be referred back to Reference Committee No. 3 for its further consideration and that it bring it forth upon the floor here tomorrow for our consideration.

. . . The motion was regularly seconded. . . .

SPEAKER CHARNOCK: It has been moved that that portion of the report which contains the substitute resolution be re-referred to the committee. Is there any discussion on this motion for reference?

DR. TEALL: This is the saddest time I have ever had to address this House, because the resolution proposed from *Rx Reading* was proposed by the Medical Services Commission of which I was vice-chairman; therefore I will propose it for your adoption. We have been deeply concerned with the adoption of a carefully circumscribed definition of free choice as the only definition which will be acceptable to the California Medical Association. And the reason we are disturbed about that point—define liberty or freedom, you thereby are limited in some degree. I am confused now. I don't know whether I would like you to pass this or not, but I suspect that most of us in the Medical Services Commission would prefer that there be no sharply circumscribed free choice of physician established as the only acceptable definition of the California Medical Association. I think I have full agreement that the California Medical Association reaffirm its stand that a free choice of physician is the basis for all continuing good medical care. In an attempt to avoid circumscribing that free choice we must be very guarded that we do not make a definition which in any way limits that free choice. I think perhaps it would be wiser to resubmit the problem to the reference committee.

SPEAKER CHARNOCK: Is there any further discussion to refer this section of the report to Reference Committee No. 3? Those who are in favor of referring this substitute resolution and this section of the report of Reference Committee No. 3 back to Reference Committee No. 3 for report tomorrow will signify by saying "aye." To the contrary? It is re-referred.

DR. ROSENOW: I hope that many of the delegates will help us work out this problem in preserving the free choice of physician.

Resolution No. 17, introduced by Eugene Hoffman, Los Angeles County:

WHEREAS, The American Medical Association has on two occasions memorialized the Congress of the United States to conduct a searching investigation into the inroads of the teaching of collectivism in our public school system; and

WHEREAS, A special subcommittee of the Senate is currently performing this task and has publicly exposed some startling facts concerning communism in some few of our teachers; and

WHEREAS, A special committee of the Association of American Universities has recently issued a report condemning the teaching of communism in our schools and deploring the fact that any of our teachers should be engaged in this practice, this report at

the same time failing to mention the broader subject of collectivism as a whole; and

WHEREAS, Communism, while spectacular, represents only a very minor and comparatively insignificant phase of the general problem of collectivism, which, with its teachings of price and wage controls, agricultural subsidies, government housing, and a managed currency based upon an encouragement to the individual to deny responsibility for himself and to transfer that responsibility to the group, ultimately results in the regimented or totalitarian state by a process of gradualism, this ultimate result being in no manner different from that desired and achieved by the radical communist; now, therefore, be it

Resolved, That the American Medical Association is to be highly commended for its leadership in recommending this congressional investigation, and the Congress of the United States is to be similarly commended for its conduct of the investigation thus far to date; and be it further,

Resolved, That a copy of this resolution be sent to the President of the United States, his cabinet, and to every member of the Congress.

The reference committee feels that Congress has already conducted searching investigations into the teaching of communism and seems responsive to pleadings to further exposure of teaching collectivism in our schools. The resolution would tend to strengthen its determination to proceed along these lines and would give the Congress a vote of confidence. Your committee, therefore, recommends a *do pass*. Mr. Speaker, I move the adoption of this section of the report.

SPEAKER CHARNOCK: It has been moved and seconded that this section of the report be passed. Is there any discussion? Those who are in favor of passing this section of the report will signify by saying "aye." To the contrary? It is passed. You will proceed.

DR. ROSENOW: Resolution No. 19, introduced by Francis Rochex, San Francisco County:

WHEREAS, Organized medicine previously devoted its entire efforts to promote the science and art of medicine and in protecting the public health; and

WHEREAS, Medicine has lacked vision in anticipating the extent of penetration of political and socialized pressure groups; and

WHEREAS, Our inert and defensive action heretofore has encouraged these organized forces to seize from us actual controls; and

WHEREAS, Our counter measures, hastily conceived and without purposeful organized procedure, have caused us to be conciliatory, thus resulting in impaired public relations and loss of prestige in general; and

WHEREAS, There apparently now has been some abatement from government interference, the time seems to be propitious to be constructive and aggressive in action: now, therefore, be it

Resolved, That the House of Delegates approve formulation of plans that will preserve the independence of the practitioner, maintain the quality of medical care, and at the same time meet the just demand for some type of prepaid medical service: and be it further

Resolved, That the C.M.A. delegation to the A.M.A. be requested to make an effort to have legal counsel of the A.M.A. (1) review and restudy the laws (as the antitrust laws) that hinder in any way the actions of organized medicine in endeavoring to maintain its integrity; (2) consider the feasibility of amending existing laws or sponsoring new legislation to accomplish this end.

While the committee feels that the intent of this resolution is excellent, we have been advised that the A.M.A. is already well aware of the problems presented in the resolution and nothing would be added by passing the resolution. Therefore, Mr. Speaker, your committee recommends *do not pass*. Mr. Speaker, I move the adoption of this section of the report.

. . . The motion was regularly seconded. . . .

SPEAKER CHARNOCK: The adoption of this section of the report has been moved and seconded. Is there any discussion?

DR. ROCHEX: Mr. Speaker and members of the House: It may well be that the intent of this resolution is not apparent because it has been phrased in rather general terms. In a broad sense it deals with two independent but still related aspects of the distribution of medical care. For many years it was common practice for self-sustaining individuals of our society to receive what we call private medical care. In the past few decades we have witnessed an international trend toward socialism and collectivism of various types. This has influenced the practice of medicine in many countries to a varying degree. Those who have been most interested in furthering the alteration of the type of medical practice from a strictly private enterprise to one of problems to be managed exclusively by the state have been pushing toward the final goal of completely socialized medicine. In some states there has been simply a modification of the private practice of medicine. In some countries the goal of the collectivists has been achieved and we have now complete socialized medicine.

We have witnessed in this country in the past few years changes in our practice of medicine, always deviating away from private enterprise. We are now in a transition period. In this country there is no reason to believe that the practice of medicine will continue as it is now practiced in this country. Ultimately we shall arrive at a final position of more or less equilibrium which will be the way in which medical practice will be carried on for a long time to come.

This final position will be achieved in one of several ways. It may be achieved by action of more or less liberal legislation either of our state or of our national government. Most of you will recall that this

very nearly came into being only a few short years ago, in 1940 to be precise. The other way in which it may be solved may be that there will be a gradual shift away from private enterprise and medicine more toward the group practice, more toward collectivism, until we are close to a government operation of our medical services. Then upon the development of some type of economic reserves of greater or less importance in this country it will be a short step from the type of medicine we are practicing to a completely socialized plan operated by the government.

Now, the third way in which this problem may be solved may be by careful thought and deliberation on the part of medicine at this time. It may be done by deciding and initiating a plan which would be mutually acceptable to the practitioners of medicine and those who are to be the recipients of medical care. Some of you may be well satisfied with the way medicine has been responding to this threat over the past few decades. I think when I say that, it is not in a critical sense but rather with a feeling of responsibility that we here are a part of that program which has been carried out in recent years, that this position is debatable.

There are some who have chosen to compare our policies of organized medicine to the vacillating foreign policy of our federal government during the past two decades. There never seemed to be a clean-cut policy which was clear and distinct to everyone. It was rather a policy of stand by and wait to see what our opposition decided to do. When the opposition made a move we hastily gathered in conference and tried to decide what was the best defensive move that we might make to stop the inroads of the opposition. I think most of you will agree that this is not the formula for success in any field, whether it be on the football field, in the field of widespread military operation, or whether it is in the field of medicine.

It is to be hoped that this final plan for medical practice in this country will cleave to the principles which have long been enunciated, and frequently enunciated, by organized medicine. It is to be hoped that it includes the free choice of physician, it will embody the maintenance of a personal relationship between the physician and patient, it will insure for the physician a reasonable return for his services and it will offer the patient a plan which will permit him to pay for those services in such a way as to minimize the likelihood of personal financial ruin.

The present time seems to me the most opportune time for us to formulate such a plan and to attempt to put such a plan into operation. At this time our national government's position on this problem is such that they would not be likely to interfere with any such plan. Now, some of you who feel that we are progressing satisfactorily along this line, I should like to recall to your attention what is transpiring at the present time in our own state. This past week we had the opportunity to see and hear the excellent film which has been presented by the public relations section of the California Medical Association. It was interesting to note that the same theme continues on right through the whole film.

Those of you who have seen it will recall that there were discussed numerous instances in various parts of the state where attempts had been made to make inroads into the private practice of medicine. In each instance practitioners of medicine called hurried conferences, got together to decide what should be done in the way of a defensive move against this new encroachment. In making such a decision they had to make some sort of concession, either to raise the ceilings or reduce the fees or make some sort of concession. This is the precise pattern which we have been following for years. Each time that the attempt has been made to make some encroachment upon the practice of medicine, after planning some sort of defensive measure, we meet with the opposition; we make some sort of concession each time. Organized medicine makes the concession. We make the concession today, tomorrow, and make still a further one.

The time is not far off—yes—when there will be no further concession to make. It is my feeling that this is the opportune moment to get together, study the problem, make up our minds, and initiate action to bring this into full realization.

Another part of this problem deals with the anti-trust laws. Most of you will recall what occurred in Washington, D. C., not too many years ago. The Federal Housing Administration established a complete service medical establishment. This establishment was in open competition with the private practitioners of medicine in Washington. When the medical societies endeavored to take means to protect themselves against these inroads, you will recall the Department of Justice was called, investigations of medical societies were made, the Washington, D. C., Medical Society and the A.M.A. were named as co-defendants as violators of anti-trust laws. The judgment was against organized medicine, and all the newspapers in the United States carried on the front pages the news that the medical trust had been convicted of violating the anti-trust laws.

It would appear to me that this may be an opportune time to consider the advisability of amending that law, so at least to give organized medicine the opportunity of protecting itself. As this law is written at the present time, it represents discriminatory legislation. It allows groups of individuals in certain fields of endeavor certain rights and prerogatives which it denies to other groups of individuals. I wish to call your attention to the fact that this resolution does not call for a specific action to either one of these problems by this group; it merely calls for a bringing of this problem to the attention of the A.M.A. so that they may discuss this problem and deliberate on it at this time and make whatever recommendations and take whatever action they see fit.

DR. SHAW: With the permission of the Speaker, I should like to lightly amend one of the first re-

solves in this resolution which in no way alters the intent of the meaning of the resolution. In the first *Resolved*, it now reads, "That the House of Delegates approve formulation of plans that will preserve the independence of the practitioner, maintain the quality of medical care, and at the same time meet the just demand for some type of prepaid medical service." I would like to amend it by including after the words "prepaid medical service," "and so memorialize the House of Delegates of the A.M.A."

SPEAKER CHARNOCK: Dr. Shaw has offered this as a substitute resolution. Is there a second to this? It has been moved and seconded that we adopt this substitute resolution. Is there any discussion?

VOICE FROM THE FLOOR: During the study of this by the San Francisco delegation we had conflicting reports regarding what the A.M.A. had been doing in regard to this problem. I'd like to know from the chairman of Reference Committee No. 3 whether the A.M.A. has actually acted on this problem or not.

SPEAKER CHARNOCK: Will the chairman please answer that question.

DR. ROSENOW: I can't say whether they are working on it, but we were so informed. Mr. Hassard was one of those who told us that active work was going on in the study of the anti-trust laws, and that was further confirmed after your members of the reference committee brought it to my attention. Both of the delegates from the Los Angeles area told me that it was their understanding that the A.M.A. was organizing diligently in this direction.

DR. BLUM: We are in another quandary trying to solve a problem in a few seconds. I therefore move that this be committed back to Reference Committee No. 3.

SPEAKER CHARNOCK: It has been moved and seconded that it be referred. Is there any discussion to this?

DR. ROSENOW: I appreciate very much Dr. Rochex's discussion of his resolution, because this was not presented to the reference committee either at the time they met or in the six months since. I would like to bring this to the attention of the House of Delegates. It was not our intention to oppose the principles outlined in this resolution. It was our understanding that all of what this resolution intended to do is already being vigorously pursued, and for that reason we thought it superfluous to pursue the subject. I am in favor of all of the intent of it, and I wouldn't want anyone to think we were not.

SPEAKER CHARNOCK: Dr. Hinman, do you wish to discuss the motion to refer?

DR. HINMAN: I have a point of information. My point of information is this: Did Dr. Blum intend to have this referred back to the House tomorrow?

SPEAKER CHARNOCK: This will be referred back to the House tomorrow. Is there any further discussion? Those who are in favor will signify by saying "aye." To the contrary? The motion to refer wins, and that section of the report will be referred to Reference Committee No. 3. Will you proceed.

DR. ROSENOW: Resolution No. 22, introduced by Ian Macdonald of Los Angeles County.

WHEREAS, The Cancer Commission of the California Medical Association has, after careful investigation, demonstrated the ineffectiveness of certain agents proposed for the treatment of cancer; and

WHEREAS, The said Cancer Commission has evidence of the use of these agents in private practice by certain members of the California Medical Association; now, therefore, be it

Resolved, That the House of Delegates request component county societies to take appropriate action toward the investigation and appropriate disciplining of those members who persist in using such unproved remedies for cancer without facilities for investigational purposes under controlled, scientific conditions.

The importance of appropriate action being taken against members using such unproved remedies for cancer cannot be overemphasized. Your committee therefore recommends a *do pass*. Mr. Speaker, I move the adoption of this section of the report.

SPEAKER CHARNOCK: It has been moved and seconded that this section of the report be adopted. Is there any discussion? Those who are in favor will signify by saying "aye." To the contrary? It is passed.

DR. ROSENOW: Mr. Speaker, I move the adoption of the report of Reference Committee No. 3 as amended.

SPEAKER CHARNOCK: The report of Reference Committee No. 3 as amended, and two sections referred back to the reference committee, is now before you. Is there any discussion on this? Those who are in favor as amended and referred, signify by saying "aye." Contrary? It is passed. Thank you very much, Dr. Rosenow.

REPORT OF REFERENCE COMMITTEE No. 4

The next order of business is the report of Reference Committee No. 4. Dr. Albert G. Miller of San Mateo, chairman.

DR. MILLER: This report of Reference Committee No. 4 is very brief. This committee, composed of Dr. Dorothy Allen of Alameda, Dr. Thomas A. LeValley of Los Angeles and myself, is reporting on the one resolution presented to us in May and carried over for action at this time.

This was the resolution by Dr. Sidney J. Shipman for the Council. This resolution regarding a constitutional amendment officially admits the Councilors-at-Large to the House of Delegates of the C.M.A. with the right to vote. It does so by deleting the word "District" in sub-section (c) of Article III,

Part A, Section 1. This section would now read as follows:

"Section 1—Composition

"The House of Delegates shall consist of:

"(a) Delegates elected by the members of component societies;

"(b) Officers of the Association as hereinafter provided;

"(c) Ex officio, with the right to vote, the Councilors, and

"(d) Ex officio, without the right to vote, the past presidents."

We of your reference committee recommend that this resolution do pass. Mr. Speaker, I move the adoption of this report.

SPEAKER CHARNOCK: It has been moved and seconded that this report be adopted. Is there any discussion? Those in favor of adopting this resolution will signify by saying "aye." Opposed? It is passed.

At this time, in order to facilitate business and get the resolutions before the reference committees, we are going to proceed with the introduction of resolutions and I would remind you that resolutions may also be put in at the end of this session and that stenographic service is again available in the C.M.A. office, which is the California Room on the mezzanine. Are there any resolutions to be offered at this time? Dr. Turner.

DR. TURNER: Members of the House: This is a resolution to amend Division 3, Chapter XI, sections 10 and 19 of the By-Laws of the American Medical Association.

WHEREAS, The Judicial Council frequently has presented to it for decision controversies between contending parties or is asked for and gives its opinion on matters with respect to which there are differences of view; and

WHEREAS, The full hearings of both parties to a controversy are essential to a just determination of it and full cognizance of all views is essential to the expression of sound opinion and it is desirable that there should be equal opportunity for all interested persons to be heard; and

WHEREAS, Interpretation of ethical principles of general application ought to be subject to examination by the House of Delegates; it is

Resolved, That Division 3, Chapter XI, Section 10(A) (1) be and it hereby is amended to read as follows:

"(1) The judicial power of the Association in matters of broad general policy and the interpretation of ethical principles shall be vested in the Judicial Council whose decision shall be final unless rejected or modified by the House of Delegates. All opinions of the Judicial Council shall be open to inspection by any authorized representative of any Constituent Society of the A.M.A. at the headquarters of the Association. Any such opinion may be brought before the House of Delegates by any delegate at any of the three regular meetings of the House succeeding the rendition of the opinion. The House may affirm or modify such opinion or return the matter to the Judicial Council for reexamination; it is further

Resolved, That Division 3, Chapter XI, Section 19(A) be and it hereby is amended by adding at the end thereof a new paragraph as follows:

"(7) In matters with respect to which an investigating jury is not requested, the Judicial Council shall observe the following procedure:

"(a) No issue between parties shall be decided by the Judicial Council without affording to each party the opportunity to be heard in the presence of each other, either personally or by a representative of his choice both orally and in writing. All parties shall be notified of the time and place of hearing in ample time to make the right to be heard effective.

"(b) No opinion (except decision of specific controversies under paragraph (a) above) shall be rendered by the Judicial Council until at least 60 days after the request for opinion (or the tentative opinion if no request has been made) shall have been published in the *Journal of the A.M.A.* for at least two consecutive issues. Any member of the A.M.A. or a designated representative may present his views on such matter to the Judicial Council in writing and, if any constituent or component society so requests, hearing shall be held at which any recognized medical society which desires it shall be heard by a representative of its choice; it is further

Resolved, That the California delegates to the A.M.A. be instructed to support this resolution.

VICE-SPEAKER BAILEY: Thank you, Dr. Turner. Dr. Bender.

DR. BENDER: Mr. Speaker, members of the House: I have two resolutions. Fortunately, they are short. This is the first one.

WHEREAS, The House of Delegates, during the annual session of May 1953, changed the status of the Interim Session from mandatory to optional; and

WHEREAS, Present provisions for the conduct of the Interim Session require simplification for effective usage; therefore, be it

Resolved, That the following changes be made in Chapter V, Section 7 of the By-Laws:

Paragraph (a): Delete "effective January 1, 1954," leaving provision for the Annual Session unchanged otherwise.

Paragraph (b): Delete current provision for an Interim Session, and substitute "During any meeting of the Annual Session, the House of Delegates may elect to hold an Interim Session in the last six months of the same calendar year. During such Interim Session business shall be conducted as in the Annual Session. The time and place of such Interim Session shall be determined by the Council as far as possible in the advance and notice thereof published in the Journal of the Association."

Paragraph (c): Delete in toto procedure for designation of emergency resolutions.

Paragraph (d): Change heading to paragraph (c), provisions contained therein for special meeting to remain unchanged; and be it further

Resolved, That the saving of approximately $2,000 in any year in which an Interim Session is not held shall, if practicable, be applied to the support of medical schools through the American Medical Education Foundation, to supplement voluntary contributions by our members, or to the reduction of dues.

The second resolution is this:

WHEREAS, The need of funds has become urgent for purposes vital to medicine, particularly the support of medical schools dedicated to free enterprise and to non-government control; and

WHEREAS, The trend of dues in our organization on all three levels is ever upward and never downward; and

WHEREAS, Opulence has led the California Medical Association into ways of extravagance; therefore, be it

Resolved, That this House of Delegates, without presuming to invade any function of the Council, desires the adoption of the following practices of reasonable economy, in the best interest of medicine in general and of our dues-paying members in particular:

1. Discontinue the practice, almost unique among state associations, of sending our 12 alternates to either session of the House of Delegates of the American Medical Association annually, as observers, with all expenses paid—travel and $25 per diem from the time of departure till return—at an approximate annual cost of $6,000;

2. Discontinue the $6,000 annual salary of the Editor of the Journal, also an indulgence shared by few state associations on a comparable basis, a practice which was intended to make possible the employment of a full-time physician-employee with a record of long service in our Association, and not to single out for compensation one among hundreds of our members, also in active practice, who devote at least equal time and effort without thought of remuneration; and be it further

Resolved, That the saving of approximately $12,000 annually shall, if practicable, be applied to the support of medical schools through the American Medical Education Foundation, to supplement voluntary contributions by our members, or to the reduction of dues.

Mr. Speaker, I suggest that the second resolution be designated as an emergency resolution.

VICE-SPEAKER BAILEY: We will consider that, and the first one will be referred to Reference Committee No. 4. Now the question comes before the House whether this second one shall be considered an emergency or not. It requires a two-thirds vote. The second one is the one on opulence.

Those in favor of declaring the second resolution as an emergency will answer in the customary manner. Opposed? The "no's" have it. It is not an emergency. It has already been referred to Reference Committee No. 3.

Are there any further resolutions? Dr. Leon Desimone.

DR. DESIMONE: Mr. Speaker, members of the House: This is a plea for preventive medicine for the inarticulate.

WHEREAS, The hazards for man and animal from rabies is on the increase; and

WHEREAS, The Council of the City of Los Angeles is considering an ordinance for the compulsory vaccination of dogs against rabies; be it hereby

Resolved, That the House of Delegates of the California Medical Association go on record as favoring such an ordinance, and that copies of this resolution be sent to the president of the Los Angeles City Council, and to Mr. Edward R. Roybal, chairman of the Public Health and Welfare Committee of the Los Angeles City Council.

SPEAKER CHARNOCK: This will be referred to Reference Committee No. 3.

DR. DESIMONE: In view of the City Council considering it at the present time I would like to have it considered as an emergency measure.

VOICE FROM FLOOR: Second.

SPEAKER CHARNOCK: It has been moved and seconded to make it an emergency. Those in favor of such an action will say "aye." Opposed? It is an emergency.

Dr. Carl Hadley.

DR. HADLEY:

WHEREAS, The intravenous administration of fluids is an increasingly important part of the management of patients; and

WHEREAS, This method of treatment is an essential part of any disaster program; and

WHEREAS, This method of treatment is a standardized technical procedure which can suitably be performed by nurses under medical supervision; and

WHEREAS, This is a time-consuming procedure which can be more economically provided to the patient by the nursing personnel; therefore, be it

Resolved, That this House of Delegates go on record in promoting legalization of the above procedure by nursing personnel, under medical supervision, and introduce instruction in intravenous technique among practicing nurses and into schools of nursing.

SPEAKER CHARNOCK: Do you care to make that an emergency? Not an emergency. It will go directly to Committee No. 3. Dr. Lester Lawrence.

DR. LAWRENCE: Mr. Speaker, members of the House of Delegates: The subject of this resolution is Uniform Health Insurance Forms.

WHEREAS, The cost to the doctor of reporting on health insurance claims is becoming a major burden; and

WHEREAS, A standard form of report for all plans would somewhat reduce this mounting burden; and

WHEREAS, Several large union welfare plans and commercial insurance companies have now agreed to cooperate in this project; therefore, be it

Resolved, That the Medical Services Commission be requested to work with representatives of welfare plans and insurance companies in devising uniform reporting forms; and be it further

Resolved, That the Medical Services Commission be empowered to approve a single standard form to be used by all doctors in reporting to all voluntary health insurance carriers.

Mr. Speaker, I would request that this resolution be an emergency.

SPEAKER CHARNOCK: All those in favor of it as an emergency say "aye." Opposed? It is so ordered. Dr. Burt Davis, Santa Clara County.

DR. DAVIS: The title of this resolution is: The Crippled Children's Program.

WHEREAS, The scope of the Crippled Children's Program in California has been greatly broadened during the past ten years, with the major portion of the increased costs being borne by the state; and

WHEREAS, This has produced apprehension on the part of many physicians, a portion of which may be allayed by a better understanding of the program; and

WHEREAS, Financial responsibility under the act has never been adequately delineated; and

WHEREAS, The legal definition of a crippled child is indefinite and is interpreted variously in different communities; therefore, be it

Resolved, That the House of Delegates of the California Medical Association instruct the Council of the California Medical Association and the appropriate committees of the Association to direct their activities toward the following:

1. That the Legislature of the State of California be encouraged to make a realistic legal definition of a physically handicapped child.

2. That the Legislature be requested to establish methods for uniform practices of social servicing for determining financial responsibility under the act; and be it further

Resolved, That the following recommendations be endorsed:

1. That the family physician be allowed to do those procedures for which he is qualified.

2. That the services of the family physician be fully utilized in making referrals and in following up the cases under treatment.

3. That the family physician be furnished with consultation and progress reports, in order that he may be fully aware of cases under treatment which would normally constitute a portion of his practice; and be it further

Resolved, That the California Medical Association undertake a program of disseminating to its members information regarding the Crippled Children's Services in order to eliminate many of the misunderstandings which have hitherto arisen regarding the operation of this program.

SPEAKER CHARNOCK: That will go to Committee No. 3. Are there further resolutions? We will give additional time at the end of the meeting to put in further resolutions. So if there are no further resolutions, perhaps Mr. Hassard will give his report of the Legal Counsel. Mr. Hassard.

REPORT OF LEGAL COUNSEL

MR. HASSARD: Mr. Speaker, members of the House: This interim report will cover only the highlights in several medical-legal fields that are of paramount interest to all practicing physicians. No effort will be made to cover each of the many subjects that have occupied the time of the legal department since the last annual session.

First, in the anti-trust field there have been no court decisions since the opinion of the United States Supreme Court in U. S. vs. Oregon State Medical Society, which was reported to you at the last session. One new suit has been commenced, this time in Minnesota.

The action is by a group co-op at Two Harbors, Minnesota, against the local county medical society, seeking a court order requiring the society to admit to membership physicians who are employed by the co-op, and seeking an injunction restraining the society from interfering with the co-op's attempts to build a new hospital. The case directly resulted from inability of the co-op to raise funds to build a new hospital at Two Harbors, and the belief of the management of the co-op that the local physicians have induced the local railroad—the only business of any size in Two Harbors—to refrain from donating funds. I have recently been informed by the attorney for the Minnesota State Medical Society that the testimony of the president of the railroad has been taken by the attorney for the co-op, and that the president emphatically testified that physicians had no influence at all on his decision; that the real reason for the management's refusal to contribute was that the co-op is owned and controlled by labor unions. This case has not progressed far enough to warrant any guess as to its outcome. However, it is safe to say that it involves local issues primarily, and that regardless of its outcome no new law applicable elsewhere is likely to result.

Second, practice of medicine by unlicensed individuals or corporations through hired physicians. This problem, I am afraid, like death and taxes, will vex the professions of medicine and law indefinitely. The human urge to make money is not likely to change, and as long as it exists individuals will attempt to profit from the practice of law or medicine without benefit of education, training or license.

There have been two decisions by the District Court of Appeals in California within the last three months. I will present more in this field. Before discussing them, let me outline briefly our court system. The lowest, of course, are our justice courts and municipal courts. Above them are our superior courts with which you are all familiar. Then above the superior court the state is divided into four districts and there are four district courts of appeal. Above those four courts is the Supreme Court.

The first of the two recent district court of appeal decisions is Complete Service Bureau vs. San Diego County Medical Society, decided in September by the Fourth Appellate District. Most of you are familiar with the essential facts in this case.

In 1939 Mr. Parmer, a layman, organized a corporation called Complete Service Bureau under our nonprofit corporation law. This corporation then employed physicians and solicited the public to enroll in a medical-hospital plan. During the years, Mr. Parmer through various devices completely dominated and controlled Complete Service Bureau; through a holding company called Group Property, Incorporated, he maintained ownership of C.S.B.'s land, buildings and equipment, and siphoned off 10 per cent of the gross earnings for himself. CSB used salesmen and all forms of advertising to solicit patients. It furnished medical services on a fixed fee schedule basis, charging $1 per office call and up to $95 for major surgery. Hospitalization was furnished on a prepaid basis. The doctors employed worked on salaries.

The San Diego County Medical Society sought an injunction against continuance of this commercial business, on the ground that three laymen—Mr. Parmer and the two corporations—were practicing medicine. The Superior Court in San Diego decided against the Medical Society, the trial judge stating as his opinion that any form of experimentation in group medical care is desirable. On appeal, the district court of appeal reversed the action of the trial court, and said: "If the undisputed facts shown by the evidence do not disclose a failure to comply with existing laws, and do not constitute a plain evasion of those laws and the existing regulations, it appears beyond question that the existing laws designed to regulate and control the practice of medicine, and other professions, should either be repealed or greatly changed."

After a decision by our District Court of Appeals, the Supreme Court, at any time within 60 days after decision by a district court of appeal, may grant a hearing and transfer the case to the Supreme Court docket. In November the Supreme Court, by unanimous decision of the seven justices, voted to grant a hearing in this case. Oral argument before the Supreme Court is scheduled for the second week in January. Final decision with respect to the legality of the type of operation engaged in by Complete Service Bureau will thus be made by our Supreme Court.

The second case was decided by the Second Appellate District late in November. It is County of Los Angeles vs. John Anson Ford. I believe that the opinion of the court succinctly states the nature of the case, the issue involved, and the decision reached. And I am sure it will interest you. I will quote from the opinion, "By the instant proceedings in mandamus, the County of Los Angeles seeks to compel J. Anson Ford, as chairman of the Board of Supervisors, to execute contracts pursuant to which the medical schools of the College of Medical Evangelists and the University of Southern California would render medical and teaching services in the County Hospital.

"The Board of Supervisors approved each of the contracts in formal session and directed its chairman to sign them. His refusal to do so is based upon the premise that the contracts are invalid, because: (1) they violate the civil service provisions of the county charter; and (2) they constitute an unlawful corporate practice of medicine by medical schools.

"Among other things, the petition alleges that the petitioner has a mandatory duty to provide medical care for the indigent sick. (Sec. 2500, Welfare & Inst. Code.)

"That, in order to do this, petitioner maintains the County Hospital which consists of a group of hospitals. Two of them are general hospitals, to-wit: Los Angeles County General Hospital and Los Angeles Harbor General Hospital. These are operated as teaching institutions.

The court states: "The purpose of this is to adequately staff the two general hospital facilities, and thereby attract interns and student trainees to serve in these institutions, and also to maintain a standard of medical care and treatment at an adequate level.

"This is made possible by affiliations with universities and colleges having accredited medical schools, which provide medical specialists from their teaching staffs. These specialists provide effective on-the-job training and teaching facilities to those employees holding permanent civil service classification, i.e., "residents, interns, graduate nurses, student nurses, laboratory technicians, x-ray technicians, dietitians, medical social workers, physiotherapists and occupational therapists," thus enabling the hospital to keep abreast of modern medical techniques.

"These services have been rendered gratuitously by the teaching staffs of University of Southern California, the College of Medical Evangelists and the College of Osteopathic Physicians and Surgeons. Recently, the presidents of these three institutions gave notice to the Board of Supervisors of Los Angeles County that they could no longer continue to do so and that they would be forced to restrict or terminate these services unless petitioner would agree to pay a fair compensation therefor."

Thereafter the Board of Supervisors determined "that it is necessary to continue operating the Los Angeles County General Hospital as a teaching hospital in order to adequately care for the indigent sick. As a result, it instructed the Chief Administrative Officer of the county to negotiate contracts with

the three named medical schools in order to assure the continuation of these services. A separate contract was negotiated with each medical school."

The court had this to say about the practice of medicine: "Mr. Ford claims that such medical care and services rendered to the patients by the faculty members of the respective medical schools constitutes unlawful corporate practice of medicine by said medical schools.

"Without question the schools involved are qualified and accredited medical schools, and the faculty members thereof are regularly licensed physicians and surgeons.

"Basically, the rule against corporate practice of medicine is designed to protect the public from possible abuses stemming from commercial exploitation of the practice of medicine."

"As heretofore stated, Los Angeles County must care for the indigent sick.

"Section 202 of the Welfare & Institutions Code prohibits the Board of Supervisors from contracting for the care of such persons except in certain circumstances which include cases:

"'(2) which require treatment or the use of facilities not immediately available in the county hospital.' In such event, the cited section permits the Board to secure 'hospital service or any portion thereof from any public or private hospital, clinic, rest home, sanitarium or other suitable facility or from any corporation formed under Section 9201 of the Corporations Code or under Chapter 11A of Part 2, Division 2, of the Insurance Code, and operating in the state.'

"It would appear that the language of the quoted section furnishes sufficient authority for entering into the contracts here in question. The real purpose of the contracts is to furnish to the County Hospital those necessary services and facilities without which it could not function as a teaching institution. These facilities include medical treatment of indigent patients in the County Hospital by individual members of the medical profession. Such service is actually furnished by medical schools. The actual diagnosis and treatment of patients will be done by licensed physicians, to-wit: faculty members. Perhaps that fact alone would not be conclusive, if the schools were soliciting the public or offering medical services to the public generally. In the instant cause, the schools have no legal or factual contact with the public or with the hospital patients.

"In the circumstances, accredited non-profit educational institutions like universities and colleges may enter into the contracts for care of the indigent sick without in any way violating the principles upon which the rule against corporate medical practice rests."

And that is the end of the opinion of the District Court of Appeals. While we agree with the result reached by the district court, we are not in accord with part of the language found in the opinion. We believe that when the court said, "The actual diagnosis and treatment of patients will be done by licensed physicians, to-wit: faculty members," it fell into an error which could have very serious consequences. Admittedly, in all instances of corporate practice of either medicine or law or dentistry, licensed physicians or attorneys or dentists perform the services; a corporation is an artificial legal entity, and can only act through live human beings. The law against corporate practice cannot be circumvented by having a corporation use licensed physicians to practice medicine or surgery upon patients who are obtained by solicitation. This has been held time and time again.

At the moment we have two decisions. One, holding that a commercial motive by a layman, and two, corporations controlled by him constitute unlawful attempt to practice medicine. And another court holding that the use by a county in caring for the indigent sick of local medical schools does not violate the law.

Generally there are three main categories of unlicensed practice. These are: First, the wholly unlicensed physician who holds himself out as a qualified and licensed medical practitioner; the second is a person who holds limited license in a related field and who extends his activities beyond the authorized scope of his field; third, the so-called corporate practice, which I have already covered. With respect to the unlicensed practice of a profession, the legal profession faces the same problems. The key problem is how to enforce the licensing laws. The Bar Association has found time after time that to proceed against an unlicensed individual or corporation in the lower courts on a misdemeanor produces nothing since practicing law is not akin to theft or embezzlement. Justices of the peace and juries are loath to convict and impose jail sentences. Time after time guilt is proven only to have the jury feel that no great harm has been done and allow the defendant to go free. While we here fully realize that treating the ill or injured may do incalculable harm it is difficult to convey this knowledge in a criminal action.

Some years ago the legal profession established a definite procedure for prevention of unlicensed practice, one that does not involve fine or imprisonment, that is not a criminal action in nature, and which is tried before a superior court, rather than a justice of the peace. This proceeding is an action in equity, seeking an injunction or restraining order prohibiting the unlicensed person from continuing his unlawful acts. This method of enforcement has proven quite successful in the legal field, and for a number of years the American Bar Association and the various state bar associations have had standing committees on the unlawful practice of the law, whose duties specifically include the commencement and prosecution of injunction suits against persons found to be practicing law without benefit of a license.

Until this year, this remedy has not been available to medicine in California. Prior to September of this year, the only remedy involved arrest by an

investigator of the Board of Medical Examiners, criminal trial before a justice's court and jury, and either acquittal or conviction of a misdemeanor. Discouraging results were the rule rather than the exception.

This year, however, the Legislature enacted a new section in the Medical Practice Act (Business & Professions Code, Sec. 2436), which became law on September 10. This section provides that either the Board of Medical Examiners or any ten physicians may commence action in the superior courts to enjoin any person who has engaged in "or is about to engage in" any acts or practices which constitute or will constitute an offense against the Medical Practice Act.

This new law for the first time permits enforcement of the Medical Practice Act by medical societies as well as by the state board, and permits the civil remedy of injunction, as distinguished from the criminal remedy of conviction of a misdemeanor. It also permits proceedings to be commenced in the superior courts, rather than in the lower courts. It gives to medicine the same enforcement weapon that bar associations have possessed for some time.

Acting under this new law, the Council some months ago created a Committee on the Unlawful Practice of Medicine. It is anticipated that this committee, working in harmony with the State Board of Medical Examiners, may prove an effective guardian against encroachment upon the practice of medicine by unlicensed individuals, corporations and other types of business organizations.

The law is new; the committee is new; and of necessity considerable time will be required before this weapon is fully developed.

SPEAKER CHARNOCK: Thank you very much, Mr. Hassard. We had this new law up here two years ago before the Legislature and it was vetoed, unfortunately, and everyone has been working like hell since to get it into law, which it finally is. We look forward to it doing something which has never before been done. Now I would like to call upon Dr. Sidney Shipman for the report of the Council.

REPORT OF THE COUNCIL

DR. SHIPMAN: Mr. Speaker and members of the House: Since the close of the 1953 Annual Session, the Council has held five meetings. An organization meeting was held on May 28, 1953, at which time I was elected chairman and Dr. Lum, vice-chairman. Regular meetings were held on July 25, October 17, December 11, 1953, and today.

This report is offered for the information of the House of Delegates and will consider only the highlights of the Council's discussions at these meetings.

1. Litigation in San Diego County, in the case where a closed-panel medical care plan was demanding the admission of some of its physicians to membership in the county medical society, has progressed through the District Court of Appeals, where the adverse judgment rendered by the Superior Court in San Diego County was reversed. The case has now been appealed by Complete Service Bureau to the State Supreme Court. That body has voted to hear the appeal and has scheduled oral arguments for the week of next January 11. Thus we may expect a final decision in this matter next spring.

2. A special committee of the Council has continued to meet with a similar committee of the California Osteopathic Association. These committees are exploring the possibility of the amalgamation of the two professions. A proposal in the American Medical Association looking toward such amalgamation has been deferred for action until next June. Several possible steps for achieving this proposed amalgamation have been suggested to the committee and we may count upon continued meetings toward this end.

3. The Council has authorized the exploration of a statewide Conference on School Health. Such a meeting would bring together representatives of the medical profession, of the school systems, the Parent-Teacher organizations, school physicians and nurses, physical education instructors, dentists and others. Plans have tentatively been made to schedule such a conference for the fall of 1954.

4. The Council has approved the offering of health and accident insurance to eligible members of the Association and such a program has been offered through Charles O. Finley Co., insurance brokers. This offering was authorized as a means of providing additional insurance for members who wished to increase their own programs and making such insurance available to other members who, through location or health reasons, would otherwise be uninsurable. All expenses of soliciting participation in this program have been met by the insurance broker and the program has been made effective as of December 1, with a participation of at least 50 per cent of the members of the Association.

5. The Council has considered ways and means of eliminating from the business brought before the House of Delegates certain ill-advised language which might create ambiguity or cast an undeserved reflection on the Association. To that end, a resolution has been approved by the Council for introduction at this session of the House of Delegates; this resolution will be presented when new business is called for.

6. The special committee appointed by the Council under the chairmanship of Dr. Lewis A. Alesen has continued to function in behalf of arrangements between Blue Cross and Blue Shield plans for cooperation in underwriting employee groups for health insurance. Some progress has already been made in this direction and the Council is confident that much good will result from these discussions.

7. The special committee under the chairmanship of Dr. Francis J. Cox has made considerable headway toward achieving a more equitable schedule of fees for industrial accident cases. The work of this committee has required the use of economists, at-

torneys, and legislative representatives in order to meet the many technical difficulties imposed by state laws. The Council has seen fit to compliment Dr. Cox and his committee for the splendid performance they have turned in to date and to express the hope that a more realistic schedule of industrial fees may be established in the coming months.

8. The 1953 House of Delegates referred to the Council two resolutions dealing with the location of physicians in rural areas. The first of these resolutions dealt with a study of the need for physicians in rural areas throughout the state and the second referred to the possible methods of community planning and financing for physicians in rural areas. The Council has referred both of these matters to the Committee on Rural Health, which has them under discussion and consideration at this time.

9. The Council has approved the upward adjustment of some ten or more fees in the fee schedule of California Physicians' Service, following the approval of these adjustments by both the Board of Trustees of California Physicians' Service and the Medical Services Commission of the California Medical Association.

The Council recommends approval of these adjustments by the House, namely, home, office, and hospital calls, consultations and mileage.

And, finally, 10. The matter of the Audio-Digest. You heard mentioned already this morning Mr. Pettis' Audio-Digest for the dissemination of current medical information and the report that it is being tried out most effectively in Los Angeles. He offered this to the California Medical Association, and it was considered this morning by the executive committee and then by the Council and was accepted. It was taken over under control of the C.M.A. and will be operated as a separate business. Any earnings will go to medical education, although Mr. Pettis has been provided for. That is the report. (Applause.)

C.P.S. BOARD OF TRUSTEES

SPEAKER CHARNOCK: I think you ought to be told what the agenda will be from now on out and we expect to reassemble at two o'clock. In the meantime we will hear from the C.P.S. Board of Trustees. I bring you Dr. Hodges.

DR. HODGES: Mr. Speaker and members of the House of Delegates: In the six months since the annual C.M.A. meeting at Los Angeles, in May, there have been numerous developments in the affairs of California Physicians' Service. Some of these are of more than passing interest and importance to the physicians of California. Permit me to discuss these matters of our dual responsibility to you, the physicians of California, and to the beneficiary members, your patients.

You will recall that the C.M.A. Study Committee restated the objectives of C.P.S., and that these objectives were then approved both by the House of Delegates and by the C.P.S. Board of Trustees. This restating has assisted the Trustees and the administration in programming activities and in securing more satisfactory and dependable results.

Efficiency of Operation: Sound and consistent business principles, effective integration of the various departments, more effective use of standard organizational procedures have all contributed to a continued downward trend in the costs of operation. C.P.S. is now operated so that 86½ per cent of its gross income is paid to doctors, to hospital, or added to the reserves so necessary to protect those payments in the event of unforeseen heavier than normal usage.

Credit must be given the staff of C.P.S., under Executive Vice-President Mr. K. L. Hamman, for the achievement of simplification and improvement of operation. Another factor in the better position of C.P.S. is the decided effort of the medical profession to avoid overuse of their plan. The decreased usage demonstrated in the past year markedly benefits our ability to extend advantages to you and the public, as will be brought out later.

Financial Status of C.P.S.: We continue in a strong and healthy financial position. From the standpoint of income, California Physicians' Service is the largest of the three non-profit plans in California. Aiding the physician members of the Finance Committee are two lay members of the board, who as business executive and financial counsellor bring invaluable experience and ability to the organization that no combination of physician members could equal. The realistic handling of funds and the demonstration of operating economies have been the direct result of their efforts.

As the fiscal position of C.P.S. has improved, the reserves of the corporation have at last reached the point at which the rate of their growth may safely be curtailed. The physicians of the state have been patient in accepting minimal return that their plan might be strong. It has long been the realization of the Board of Trustees that this inadequacy of recompense existed.

The National Association of Insurance Commissioners has studied most closely the affairs of medical prepayment plans, and at a recent meeting arrived at some conclusions on which to advise (and, in some states, to control) Blue Shield and Blue Cross plans relative to reserve requirements. They have stated that plans must have no less than the amount needed to pay three months of normal experience costs, and no more than six months. Below three months' reserves would require a premium rise, or curtailment of services. Above six months, a lower premium rate or liberalization of services. California Physicians' Service is responsible to the Attorney General, but the influence of a body like the N.A.I.C. is certain to be felt, nevertheless.

Our reserves represent a healthy mid-point between the two extremes noted, approximately four and one-half months of anticipated normal usage.

Realizing that the present rate of accrual to the reserve funds is no longer required, and realizing that an adjustment in fee allowances to the profession is timely, the Board of Trustees has acted upon this suggestion of the Finance Committee and has approved this move. In so doing, it is distinctly not the intention of the board to alter the relative value of one fee to another. However, the board, like all of medicine. earnestly desires to see this matter of fee relativity resolved in a not too distant future.

Directly linked with this move to recompense the physician somewhat more adequately is our intention to extend benefits to group contract holders without increasing rates to the public for C.P.S. coverage.

Beneficiary Membership: Final dissolution of the joint operations with Blue Cross in Southern California was accomplished in September of this year. It began, as you know, in December of 1950, and could be completed only upon the expiration of existing joint contracts. These contracts were then available to the whole prepaid field. Some signed with Blue Cross, some with Permanente, some with commercial carriers. C.P.S. has been signing an encouraging and increasingly large per cent of these expired contracts.

In July of this year, our membership reached a low of 599,279. Since September, the total number of memberships has been increasing. Our executives anticipate that there will be a membership gain at the end of the fiscal year, March 31, 1954, for the preceding twelve months, of approximately 50,000.

I should like to point out that a reasonable continued growth can show a decided decrease in our operating cost percentage, eventuating in extension of benefits and a better return to the physician. In a growing state, a growth in members covered seems reasonable. No organization flourishes if it stands still. Growth requires selling and the sales methods of C.P.S., I am sure a little current study will disclose, are on a factual, planned low pressure basis. Our sales force are indoctrinated in realization that they are selling a service for the server and to the public and that in this instance the server must desire to sell what the public is asked to buy.

Some advertising is a prime requisite of any selling. While all copy cannot possibly please everyone, Blue Shield desires truthful effectiveness. As the nationwide aspects of Blue Shield are described to you, you will better understand certain national advertising soon to be seen. All Blue Cross and Blue Shield plans will be published in this projection of the ideology of volition rather than compulsion in medical care.

Development of National and Coastwide Coverage: The future of Blue Shield type plans will be determined to a considerable extent by the ability of the plans in the various states and regions to act cooperatively or collectively to sign contracts with groups whose members are beyond state boundaries. More and more this is asked for when unions or great corporations desire a health benefit plan. Blue Shield and Blue Cross are in a strategic position to accomplish this. Thus far no closed panel plan is in a position to attempt even a gesture of this kind of thing. An effective Blue Shield can be successful in preventing it!

Some months ago a contract was signed whereby National Blue Shield and Blue Cross agreed to write the business of national corporations jointly, on a nationwide basis.

Inasmuch as California is primarily a branch plant state, the growth of this national business among private insurance companies has been marked and it is believed that the employees of many companies can be most effectively served by a National Blue Shield-Blue Cross joint program.

Recently, a segment of the meat packing industry —Swift and Company—contracted for hospital services through National Blue Cross and medical services through National Blue Shield, and participation of C.P.S. in this program made possible the securing of approximately 7,500 members in California. I might state that an unsuccessful competitor for this business was a well-known closed panel plan.

During the fall months the Stationary Engineers were interested in uniform benefits in Washington, Oregon, and California. Through joint solicitation a substantial number of the members of the Stationary Engineers' Union in California have been added to C.P.S.—the first such contract written on a coastwide basis.

It is anticipated that there will be an increased demand on the part of companies with branch plants or offices throughout the forty-eight states for uniform benefits, and that C.P.S. will be successful in securing its share of this business.

A contract negotiated in the spring of 1953 between a labor union and an industry employing many thousands of people included a paragraph saying that the nationwide employees were to be covered by Blue Shield and Blue Cross except in California, where the local labor unions were authorized to contract with Blue Cross, Blue Shield, Permanente or a private insurance company for coverage.

There is no closed panel plan that can offer national or coastwide coverage, so every effort is to be made to extend uniform Blue Shield-Blue Cross coverage to the national contracts in California.

Closed Panel Competition: A careful analysis of the factors concerned in the growth of closed panel plans has led to the conclusion that planned cooperation between the doctors and C.P.S. Blue Shield could result in successful competition with these closed panel plans. It is noteworthy that during the past several years, no existing C.P.S. group of size has been lost to any closed panel plan. In competing with such plans for group coverage, C.P.S. has been most successful in areas where there exists high community confidence in doctors—a willingness on the part of doctors to adjust income ceilings to meet proposals of closed panel groups with no income ceiling—with adequate benefits in C.P.S. contracts and aggressive cooperative solicitation.

In Riverside County, where the inroads of the closed panel plan threatened the private practice of medicine, a program was jointly developed by the county society and C.P.S. which eliminated such threat.

In other areas, such as Santa Monica, San Pedro, and Long Beach, programs are now in process of development whereby service rendered by the doctors and the C.P.S. method of collecting and distributing funds is making substantial progress.

I have, on several occasions, met with doctors in various parts of the state to aid in planning their successful competition. I have concluded that meeting the threat before such plans are firmly established is greatly more effective than merely opposing them once they are in a locality. The impact of such a plan on a community must not be underestimated.

Relations with the Profession: One of the most heartening developments to be noted in the past year has been in the sharp increase in the cooperation of the leaders in the medical profession—both state and county—with the trustees and staff of C.P.S. This, in turn, I am certain, has encouraged the latter to redouble their efforts to forge C.P.S. into an effective instrument for the profession and the public alike.

The solicitation of groups by doctors and C.P.S. salesmen jointly has been increasing, with the result that many new groups, from Eureka to San Diego, have been added.

This doctor-C.P.S. cooperation has been so widespread that it is impractical to list all of the areas in a report such as this, but suffice it to say that such cooperation has commanded the respect of group leaders from the lumber industry in Northern California to the aircraft industry in the South.

Conducting C.P.S. affairs in this pleasant atmosphere of mutual trust is one of the pleasant rewards of serving. It is the deep desire of the trustees and management of C.P.S. so to operate your plan that such cooperation is fully and continuously deserved.

Simplification of C.P.S. Contracts: A realization of complexity and multiplicity of contracts, with nebulous overlapping of medical, surgical and hospital benefits, or worse, great gaps in coverage, a consciousness of growing ill will over petty exclusions, conditions, and annoyances, both to doctors and patients, led to careful analysis of all contracts. Under the Contract Committee an energetic corps of C.P.S. workers proceeded to study the sources of dissatisfaction. Twenty-four major ones were rooted out and eliminated from all future contracts. The added expense to C.P.S. is as nothing compared to the good will resulting from their banishment.

In addition, it was determined that future contracts should be written on the "unit" basis, with a number of accurately dimensioned "building blocks" from which units a contracting agency could devise the type of contract suited to its purposes and needs. A single basic contract is to apply, with endorsements being added as building blocks. As old contracts expire, new contracts will be written on this basis. They should be ready by about January 1, 1954.

Sale of Indemnity Type Insurance: As recommended by the Study Committee and approved by the C.P.S. trustees, the California Physicians' Insurance Corporation was organized in the spring of 1953. Funds necessary for the purchase of the shares of this corporation and the establishment of reserves as required by law were voted by the Board of Trustees. This is a corporation wholly owned by California Physicians' Service.

This indemnity insurance company is now in being. It was formed for the purpose of writing insurance, when so requested, by any county society under a controlled individual, county and state fee schedule.

To date, several divisions of county societies have developed and adopted average fee schedules, but the San Francisco Society is the only one that has officially requested action.

The formation of this insurance company permits C.P.S. to offer both indemnity and service type contracts and thus compete in a broader field of prepaid medical, surgical and hospital care.

If and when other county societies adopt average fee schedules and request C.P.S. action, experimental programs can and will be inaugurated.

Proposed Plan for Affiliation of Blue Shield and Blue Cross in California: As has been reported to the House of Delegates, the C.M.A. Council has appointed a committee, upon recommendation of the Study Committee, to reexamine the possibilities of a close affiliation between the two Blue Cross plans in California and C.P.S.-Blue Shield. Numerous meetings have been held and all C.P.S. representatives have cooperated in every possible way in these exploratory conversations. Divergent viewpoints or differences in philosophies are looked upon as matters to be resolved, rather than as obstacles barring settlement.

In the meantime, C.P.S. is solvent, sound, growing, so that the element of panic or ill-advised haste in arriving at mutual agreement plays no part in negotiations. An air of cordiality prevails at the meetings. The organization meets to discuss pooling of effort for broader service, rather than the absorption of sick or weak members.

Veterans' Program: The continuation of the program for payment to doctors for outpatient care of service-connected disability of veterans has been seriously threatened through the proposed reduction in funds allocated for such payments as compared with funds allocated for the maintenance of the personnel of veterans' hospitals, etc.

Under the leadership of Mr. Richard Lyon, and with the fine cooperation of those doctors with connections in Washington, C.P.S., has been successful in retaining the program as carried out in California. The willingness on the part of the doctors to continue to serve veterans during the short two-week period when no funds were available was most com-

mendable, and extremely helpful in dealing with the Veterans Administration. You can be assured that your interests in this matter, and those of your veteran patients, will be represented by C.P.S.

The Future of C.P.S.: This is, of course, dependent largely upon the future of all of voluntary prepaid medicine. The future can be nothing if compulsion is substituted for volition. The concept of prepayment has not merely been accepted by the public. It is enthusiastically endorsed. If medicine does not shape and guide this thing it may discover that a national union or a closed panel advocate has.

The best in C.P.S. has adapted to the changing needs and conditions, and the future should find C.P.S. able to exhibit flexibility in meeting the changes of the future — changes that should be molded in part, at least, by the medical profession.

I feel that C.P.S. must be virile, potent, effective. It must not dominate, to be sure, but a satisfied profession must consider it not merely something to be tolerated, or worse, an instrument against something. A satisfied profession must support it because it will be a two-edged sword, faithfully serving you and your patients.

In determination that the profession must be satisfied, the Board of Trustees and management pledge every effort to anticipate the needs and desires of the doctors as well as the demands of the market. Our greatest satisfaction would be the knowledge that all had been well served.

SPEAKER CHARNOCK: Thank you very much, Dr. Hodges. Dr. Hodges' report will go to reference committee on C.P.S. business. Anyone having a resolution on C.P.S. business can still, of course, introduce it later on this afternoon.

We have considerable business to conduct this afternoon. We must be out of this room by 5 o'clock and I am going to ask you to return to this room so that we may begin our business precisely at 2 o'clock. We have some distinguished guests this afternoon to present to you. It is the first time that the Governor of California has come to the House of Delegates of our Association and he is to visit us for a short time this afternoon, together with the Lieutenant Governor. So if there is no action to be taken and no objection from the House, we will recess until precisely 2 o'clock.

. . . The House of Delegates recessed at approximately 12:30 o'clock. . . .

Saturday Afternoon Session

The Interim Session of the California Medical Association reconvened at 2:00 p.m., Donald A. Charnock, M.D., presiding.

SPEAKER CHARNOCK: Ladies and gentlemen, please be in order. At this time it gives me a great deal of pleasure to present to you the Clinical Professor of Medicine at the University of California who will talk to us on "Tuberculosis—Today and Tomorrow." Dr. Sidney Shipman. (Applause.)

. . . Dr. Shipman presented an informal address on "Tuberculosis—Today and Tomorrow." . .

SPEAKER CHARNOCK: Thank you very much, Dr. Shipman, for that very interesting talk on tuberculosis. Dr. Green, will you present Dr. Kenney, please.

DR. GREEN: Members of the House, ladies and gentlemen: It is a great pleasure for me at this time to introduce to you one of the hardest working presidents of state medical societies or associations in this country. I have known this gentleman for a considerable time and have the greatest respect for him. As a matter of fact the friendship is so close, I'd almost love him if he had long hair. (Laughter.) I want to present to you Dr. J. Stanley Kenney of New York City who is here in the interest of the blood picture in his home state. Dr. J. Stanley Kenney.

DR. KENNEY: Thank you, Dr. Green. Members of the House: I won't presume to intrude on your time which I know is most valuable, but I do want to say how happy it is for me to be able to be here, even for these few minutes, to greet you and tell you how your colleagues in New York feel about California. There was a time ten years ago when I might not have been able to say this so readily, but fortunately we have had an opportunity at pretty close range to personally see and study the things you are all interested in, which are common situations not only in California but in New York as well. For that reason it is really a very great privilege and pleasure for me to say these very few words to you.

I have been particularly impressed over the last year or two at the tremendous accomplishments you have made in your blood banking field. I am not a hematologist but I was roped into this thing in New York. We are about to launch the blood bank association in New York. We are incorporated and about to go into business. And I am here to learn through your very gracious courtesy. I want to thank you for bearing with me for these few minutes and I wish you Godspeed in your deliberations. (Applause.)

SPEAKER CHARNOCK: Thank you very much, Dr. Kenney. Dr. Kenney has to make a 3 o'clock plane and therefore he has to leave quickly.

Gentlemen, I am going to ask you to please fill up these front seats, because it looks so much better for our distinguished visitor who is just coming. Dr. Shipman and Dr. Green will bring in our distinguished guests. Gentlemen, as the Governor comes down the aisle we should all stand.

VICE-SPEAKER BAILEY: Members of the House: We are much honored this afternoon to have with us a distinguished friend who really needs no introduction to this body. It appears that Governor Knight promised to serve us when he took office. But a record of his past performances is appreciably better than that. Governor Knight has been a friend of the state medical societies ever since he has been in Sacramento and a long time before that. There are no friends like old friends. Just to show that we take no chances that the matter of friendship might some-

how be concealed or kept secret, we have published an editorial on the subject in CALIFORNIA MEDICINE entitled "New Atmosphere" which will reach some 12,000 doctors, families, and employees. It is possible, too, that some of our patients might be told how pleased we are to have Goodwin Knight, Governor of the State of California. Delegates and members. His Excellency, Governor Knight. (Standing applause.)

ADDRESS BY GOVERNOR KNIGHT

GOVERNOR KNIGHT: Thank you, Dr. Wilbur Bailey. Lt. Governor Harold Powers, distinguished officers of this association, members, and my fellow Californians: When Dr. Bailey was speaking in his pleasant and friendly manner concerning myself, I was reminded of a simple little anecdote which seems appropriate to recall at this time. It concerns a man about 78 who went to a minister to tell him that the shades of his life were drawing to a close and he would like to discuss with him the matter of the funeral arrangements and particularly the service. He said, "Reverend, you will, of course, remember that I was president of the chapter of the Rotary Club and head of the Community Chest, and I would like you to mention that each year I was very generous in my gifts to charity. I was president of the Welfare Council, I was called to Washington, and then I advised the Governor on different occasions, and I also was president of my company, and I had four fine children who went to universities and played on football teams. Generally speaking, Reverend, you will agree with me I have been a prominent citizen?" The Reverend nodded. "Well that is it, generally. . . . Oh yes, I was Ruler of the Elks, too." And so he left. And the Reverend prepared to make his notes, when he heard a knock on the door. The man stuck his head in and said, "By the way, Reverend, don't forget to stress my humility." (Laughter.)

I feel that in this company I should respond to those words with becoming humility. Yes, gentlemen, I do feel that I am here among friends. It may be political issues, but in addition since I am a member of a contemporary profession, I think we have much in common indeed, and I am sincerely happy that during the time that I shall act as the Chief Executive of the State that I shall do and say and be that kind of things that you would do, say, and be, if you were Governor of California. To Be Governor of California impresses me as a definition—a good definition might be that to be a good governor would be to have the imagination to put yourself in the best man's shoes and the courage to walk in them. In any event, I am honored to appear here today and extend greetings to you and I am privileged to have been invited to attend this 1953 interim session of the House of Delegates of the California Medical Association. I understand that while your House of Delegates has been holding such interim sessions for the last six years, this one may be the last of its kind, except in the event of pressing need. If this is so, I am fortunate to have this opportunity for leisurely discussion with you, because your future meetings may be very brief, and devoted only to urgent matters.

It was nearly a hundred years ago when your association was formed by 76 members of the medical profession who had gathered from 13 California counties for this purpose. In reviewing the minutes of those early meetings, it is interesting to note that surgery in those days dealt mainly with the accidents and violence of the period, and about all that was required for success was a detailed knowledge of anatomy — and a certain physical courage and strength.

One of the most widely publicized feats of surgery was performed on United States Marshal Hopkins, who had been stabbed in a duel by Judge Terry of the California Supreme Court. This is described in Dr. Henry Harris' "California's Medical Story" as a "hair raising operation, involving ligation of the left common carotid artery. It was performed on an almost exsanguinated man, minus asepsis of any kind, with blood flooding into his trachea. It was done at 7:45 p.m., when it was too dark to see by the light of heaven, and yet too light for candles to be of assistance." The skill of the surgeon who performed that operation, a Dr. Cole, was attested by the fact that the Marshal completely recovered within a few weeks. Many of Dr. Cole's descendants must still be with us, for today in California even more complicated surgeries are performed with even greater success.

Since those early days, our state has made much progress in the health field, and today our people enjoy longer and healthier lives than ever before.

Part of this is due to improved conditions of life generally. But we also owe much credit for these advances to you in the medical profession who have developed so many better ways to treat our many ills.

Yet life always presents difficulties. Paradoxically, our very progress in health has given rise to new health problems. Because, while this progress has extended our life expectancy, it also has created a growing body of older people, many of whom suffer more serious and prolonged diseases than do our youth. Both you as physicians and we in state government are concerned about this situation. Already more than 8 per cent of California's population are over 65 years of age.

May I say to you this: I'll put it in this manner. The old age senior citizen problem is indirectly your fault. It is not exactly a fault either. It is because of your skill and ability and prevention programs that we have 273,000 senior citizens on the old age pension roll in California, and they are drawing eighteen and a half million dollars a month, and don't let the radical left-wingers and the fellow travelers and the destroyers of civilization tell you that we in California are stingy and miserly to those who have reached the senior citizen status. We are generous, and the reason we have so many old peo-

ple is because you have made it difficult to die. That sounds kind of like a wise-crack, but it's flat fact. Because you and the people like you, the technological specialists, and others have conquered diphtheria, scarlet fever, typhoid and smallpox, and in your conquering these things you have made people live longer, until now you can only die from heart trouble, arteriosclerosis, and leukemia, and the Los Angeles traffic. You think I am kidding—I read in the paper the other day that so far Detroit has produced 5,000,000 automobiles this year, and I think they have sold all those automobiles in Los Angeles. It isn't true, of course, that in traffic in California you don't have to be careful to live, you just have to be quick.

I mention that in a sort of wise-cracking manner, not to appear to be a comedian but to call your attention to the fact that this is a serious problem which you cannot control and I with all the power given to the Governor cannot control. We killed 3,562 people last year in California and 799 were in the biggest county, Los Angeles, in traffic accidents. We may injure 101,000 people in the traffic in California. That is a larger percentage than many of the other states. You may wonder why. I will tell you why. We are not less careful and more careless than other people but we have more out-of-state visitors who are unfamiliar with the laws and rules and regulations. We have more vacationists who leave their inhibitions at home, we have 14,000 miles of highways, 1,100 miles of which are divided highways. We have year-round perfect driving conditions; it is free from chilblains and ice, but it is also one of the things that add to our traffic hazards.

When I say to you that you have increased years of life, you have, of course, brought untold joy and anticipation and happiness to people but you have added to those who are politicians. You must urge people in business to keep people longer. They get on the old-age pension rolls. We have to get the money to pay them. We have got to look out. Am I being too blunt here? I feel that I can speak bluntly with you, ladies and gentlemen, because we have been in many controversial battles in the past and I owe you complete confidence.

As many of you know, I am directly concerned about one of the most neglected of all health problems of older people—without funds, mentally confused, and often suffering a variety of physical ills—who have been sent to our state mental hospitals. These patients don't belong there and little can be done for them there; also, they crowd the truly mentally ill patients who might really benefit from the modern type of care available in our state mental hospitals. To correct this situation, I believe that mild senile patients should be cared for in their own counties with the state assisting financially just as we now do for tuberculosis. It would be better for the patient and better for the state.

On the other hand, it seems to me that far too many of our aging sick people end up in state and county institutions or receiving public assistance. This is both unpleasant for them and expensive for us. How much better it would be if we could find ways to maintain their health and productiveness much farther into the later years of life.

I know of your interest in this problem. Participation by some of your leading members in state and local conferences on the problems of the aging has helped steer us toward a more constructive policy. For example, some of your Councilors and other members devoted many days and nights to the investigation of chronic diseases conducted by the State Department of Public Health a few years ago.

Chronic disease is now responsible for more than two-thirds of all our mortality and a vast amount of disability. Yet we are beginning to make headway, at least in regard to a few important diseases.

One of these is cancer, which still causes one out of every seven deaths in California. However, it is encouraging that deaths from female cancer have recently started to decline. In bringing about this decline, your Association's Cancer Commission has displayed the kind of responsible leadership we expect of doctors by stimulating public interest in cancer through the American Cancer Society and by aiding the cancer control efforts of the Department of Public Health. Thus you have put us in a much better position to cope with cancer than we were even a few years ago. And right here in California, you have been instrumental in developing one of the nation's best systems for evaluating and improving cancer treatment in hospitals.

I believe that this is the way to tackle our health problems—through leadership and advice from the medical profession, coupled with private support, and with government participation when appropriate.

The California Heart Association, likewise privately supported, guided by the medical profession and aided by state governmental action, is showing how to approach the problem of heart disease. Research, public education and preventive community services sponsored by that association will, I am sure, some day reduce the toll of heart disease among middle-aged and older people just as it has already greatly reduced heart disease deaths among persons below 45 years of age.

This kind of aggressive attack on cancer, heart disease and the other chronic diseases must be pursued. Otherwise we will have to endure an ever-growing burden of dependency and the public cross of prolonged institutional care. Furthermore, if we don't tackle this problem together and find better solutions, the financial burden on the state and counties will grow to a staggering number of millions of dollars.

As most of you know, our state budgetary problems already are very difficult, and we must find better and cheaper ways of doing the things that are essential. Thus, it is my earnest desire to hold expenditures to the rock bottom minimum and yet not curtail the services that are vital to the health, welfare, education, or safety of all Californians.

With that thought in mind, I shall look forward to working with your Association in developing programs that will improve the health of the people of our great state.

May I just conclude with one more word. I think that in your own experience you will find a lot of fellows in the counties, cities and state who will say that there are a lot of fellows who belong to these associations because they are medical politicians, because they want to see their names in print and they like to be prominent members of the profession. I am well aware of that charge. I am a lawyer and except for those lawyers who are immediately expecting a judgeship I have had from time to time similar criticism leveled at me by the members of my own profession. I pay no attention to those things. And I dare say you should, and most of you do, take a similar attitude for this reason: all of the fine things done by your profession have been done through organization. Brilliant though you may be as individuals and highly talented, you would have been powerless to prevent many of the things, and to promote many others which would have been beneficial, except for the organization of which you are part.

Every lady and gentleman here has left a practice —which had you stayed at home to attend to would have increased your income, would have increased your value as a money-getting individual—to participate and contribute. And in so doing, you must of necessity feel some inner glow of satisfaction. You are not deluded, nor am I, that we are going to leave a name that will resound in the Halls of Fame. Sometimes we are criticized, which of course from now on will be more frequently. I have met many men, and so have you, that think that some day they are going to be busts in a high school—a big man, a big name. Some time, they think, they are going to have a statue in the park, a bronze statue depicting heroes of former days. I try to remember that the only ones who are interested in the statues are the pigeons. (Laughter.)

You have added to the sum total of good in the world and if in so doing you become an officer or director it does two things, sharpens your knowledge of human nature and increases your wider participation, which helps all of us. Finally, you add to the luster of your great profession before the public generally, because since you participate in human welfare and are of constructive use to the community you attract, of course, the respect and admiration of hundreds and thousands of lay people who are not only surprised that the doctors lend a service but that they do it as a collective body. Finally, I would like to say that I am grateful to each and every one of you as members of this profession for the support you have given to me. They are given politically; I realize that gratitude is something you hope to receive in the future. But, nevertheless, I want this word to go out, that I do not expect to be a great man, and I don't think I am a great man. I hold a great office and because I hold a great office in a great state I have power and ability to attract to me people who are pretty near being great and we will give fine service. As your new Governor I have no illusions concerning my talents or my weaknesses, but I assure you of one thing: I don't owe allegiance to anyone. On October 15 when I took the oath of the thirty-first Governor of California I said, and I say again, I have no ambitions except one burning one, to be a good Governor for all of the people of California. (Applause, standing applause.)

SPEAKER CHARNOCK: Thank you, Governor Knight. It takes two men to head up the executive work of this great state of California. Governor Knight comes from the southland, his official home, which makes it appropriate that the Lieutenant-Governor comes from the north. For several years I was privileged to live in Modoc County and I know well the rolling hills and mountains and lovely valleys from which your Lieutenant comes. The Lieutenant-Governor is the Governor's team-mate in Sacramento. He is known as Butch. Ladies and gentlemen, it is a pleasure to present to you the Lieutenant-Governor of California, Harold J. Powers. (Applause.)

LT.-GOVERNOR POWERS: Dr. Charnock, Governor Goodwin Knight and officers and members of the House of Delegates:

You apparently have had in your state government as you know sort of a new look, changing back as fast as women's styles. And that reminds me a little of a story of the fellow who fell out of a building, landing on the sidewalk. No one else saw it at that particular time, and an officer rushed up to him and said, "What happened?" And the fellow replied, "I don't know, I just got here myself." I don't think, however, that Goodwin Knight, your Governor, or myself feel that we just got here, because while we haven't been in these particular positions we have been in other positions in government. I feel in speaking to you folks this afternoon that I am among friends. I feel that I know you professionally; that is, that I know your profession. I am familiar with your ability and your profession and with the high ethical standards that you have maintained in your profession.

You know, when I first came to Sacramento, I remember very well the distinguished doctors who were there looking after the medical profession at that time. One of them is Dr. June Harris, and I also know later of Dr. Dan Kilroy and that man from Napa, that Dr. Murray, and last but not least we have one man in Sacramento that is really a Surgeon General to the Legislature, and that is Dr. Frank MacDonald. When anyone is sick it sometimes sounds like someone reporting a football game because everyone is yelling for Frank MacDonald. He is always in the picture.

I also know that you have had fine paid representatives in Sacramento during my time in the Legislature which goes over a period of twenty years. It

has been a privilege to know Ed Clancy and Ben Read. It is always a pleasure to talk with them and ask them for guidance and advice. I can say to you frankly in the high ethical standards you have maintained for your profession you have maintained those same high ethical standards in your political field, and it is a privilege at all times to know of the work you folks do. In the request of any legislation you might have, it is always in behalf of public interest and for the benefit of public interest. And I say to you, any professional groups of people, regardless of what profession it might be, as long as they maintain those high ethical standards in their profession they will always be regarded very highly, and always receive that which they should and are entitled to in government.

I know also that in looking to you folks in the future, we will look to you for guidance and we look at you in admiration for what you are doing for our state and for our country. And I can say that this last session of the Legislature—and I know definitely in talking with the chairman of the finance committee of the Senate and sitting in on the committee meetings of the financial committee and the budget committee—that the medical profession of this state has rendered a great assistance to us in the Department of Mental Hygiene. By the assistance we have received from your individuals and from your profession, we have cut down the overall of that budget of the Department of Mental Hygiene, which is being rendered free and they are still rendering great service to the people. We have something like 53,000 inmates at the present time, and your assistance has helped us greatly. I just want to say now that it is a privilege to be here with you, it is always a privilege to work with you, and I want to thank you and your representatives for being here this afternoon. I thank you. (Applause.)

SPEAKER CHARNOCK: Thank you very much, Lieutenant-Governor Harold J. Powers. And now I want Richard Mackay, the Governor's secretary, to stand up and take a bow. (Applause.)

We thank you, Governor Knight and Lieutenant-Governor Powers, for being with us today and we hope that you will come and visit each one of our sessions of the House of Delegates. Thank you very much.

GOVERNOR KNIGHT: I forgot to say one thing, I guess, in my self-assurance that my record on certain controversial questions was so well known. I should like to reiterate: In the coming session all bills looking toward socializing your profession will be vetoed by this Governor. (Standing applause.)

SPEAKER CHARNOCK: We will be in recess for five minutes.

. . . The House of Delegates recessed for five minutes. . . .

SPEAKER CHARNOCK: Gentlemen, will you please be seated. We will please be in order. First, we are going to have a short report from John Upton on Blood Bank conditions.

BLOOD BANKS

DR. UPTON: Mr. Speaker, we would like to thank the delegates who did such a masterful job in slowing down this national blood program which is taking form at the present time. This national program, as perhaps some of you know, is not getting any publicity, and we do not want it to get any until the master plan is completely ready, and then to come through A.M.A. However, we asked that the delegates to A.M.A. would slow down the impetus; it was going too fast and in one direction, and that direction was opposed to what the California Medical Association wanted. In brief, the A.M.A. was supposed to sparkplug it and fortunately they did after many years. Your Blood Bank Commission has been able to get in at the conference table as represented by A.M.A., American Red Cross, American Society of Clinical Pathologists, the American Association of Blood Banks and the American Hospital Association. There will have to be compromises all along the line but on basic principles we are not going to bend. And those basic principles have been enumerated many, many times.

Certainly, as long as the national program is long overdue it is nice to see it coming into being. And for your information, and although you know it, I would like your permission, sir, to just stress again what we are trying to do from California for the state and for the nation. The only thing that we want to put into the early minutes of this national group —and it was California that needled various agencies to get together—because the national program was in a mell of a hess to say the least. We want to see the Boston Agreement and also the resolution which was passed by A.M.A. last June. We want to see those two put into writing and spelled out for the benefit of the nation. The commandments we have enumerated and we would like each one of you to be aware of them, are simply this: One, blood banks serve the people best if they are medically sponsored and controlled; the communities feel that they should be non-profit functions, run on strict business principles. To accomplish this banks must stress the cost service fee and donor replacement. Banks must not deny transfusions because of inability to get donor replacement or pay for the service. Blood banks should be integrated with each other. Banks must serve rural and urban areas impartially and continue service. They should utilize, when feasible, all blood bank facilities within that area, provided these facilities meet minimum technical standards. The bank must stress community participation by enlisting, educating, and training voluntary workers. They should participate in all phases of blood banking and solicit endowments for such essential scientific progress. They should encourage interstate reciprocity and work for a realistic national blood program. Blood banks should, in time of peace, prepare for disaster in time of war, as in the last Korean conflict. Blood banks comprising the California blood bank system, sponsored, controlled, and more or less operated by C.M.A. and local county

societies turned in, through Red Cross channels for the armed forces, a total of 515,504 units of blood at cost, and that was at a cost of $5.42 per unit. During the year 1952 the same banks provided a total of 120,705 units for civilian day-by-day usage.

At the end of a speech before the Texas Blood Bank Association this month the chairman of the Blood Bank Commission finished by saying, "in conclusion we also serve notice that until such a time as we are convinced that there is a far superior approach to the present successful system of blood banking now operating in California we will continue to hope for that which is good." We intend to do that.

Would you please inform the doctors in localities supporting blood banks? It is amazing how many doctors know nothing at all about it, whether it is Bakersfield, Eureka, San Diego, or wherever the banks are located. We certainly hope that in the future the three areas which are now being supplied by the Red Cross will see fit to come under the jurisdiction of the C.M.A. control and advisement. Certain it is, and I think experience has proved to you men, if you have used facilities of any of these blood banks, that we can give a better service to your patients and at less cost. I don't think there is any state in the nation which can get blood to your people in a faster or more dependable system than the way it is being done now.

We will have an exhibit from C.M.A. at the next meeting in San Francisco of the A.M.A. We definitely hope to have another one stressing what medicine has done and in the future, through our Council and C.M.A. Journal, we hope to have a message that might be of interest to all of you. Thank you, sir, for your support and for the support we hope you will continue to give the men in your locality working on the blood banks and to the blood bank itself. (Applause.)

SPEAKER CHARNOCK: This is for Reference Committee No. 1. We have an announcement. The Los Angeles County Medical Association will caucus in the ballroom next to the Cirque Room immediately after the House of Delegates adjourns this afternoon. All members of the delegation are requested to be present.

MEDICAL SERVICES COMMISSION

The next report will be the Medical Services Commission. Dr. Ralph Teall reporting.

DR. TEALL: Mr. Speaker, gentlemen:

Once again I am happy to report to you. So much of our report is material which is of interest to you and has been in the past that I am going to take the responsibility of reading it to you.

Your Medical Services Commission has within the past few months completed a statement of principles which it proposes to use in evaluation of plans of medical care insurance. This statement has been sent to each member of the C.M.A. Your frank criticism and comments are urgently requested in regard to the subject matter and to the method of presentation and distribution.

Your Commission has been in close liaison with C.P.S. regarding minor adjustments in the fee schedule used by that body. Throughout this discussion the commission has steadfastly maintained that determination of relative values of fee schedule items is a prerogative of doctors alone, which they must jealously guard.

Your Commission, through a subcommittee of outstanding physicians throughout the state, is exploring the basic principles which should go into establishment of fee schedules. On completion and agreement in these principles it will be possible to proceed with development of a new complete fee schedule for recommendation to C.P.S. by the C.M.A.

Your Commission has continued to hold frequent meetings with groups of diverse interests in the whole field of medical care insurance in California. Interchange of information and opinion with these groups has proven very helpful to all participants concerned.

Your Commission has cooperated in preparation and distribution of the brochure "Health Insurance Is Good Medicine." This has been very favorably received. We would appreciate your frank comment on this step toward public education, both as to content and method of presentation.

Your Commission has urged development of tape-recorded presentations for widespread diffusion of information in the field of prepaid medical care and medical care insurance. Such presentations are now being prepared by the Public Relations Department and will reach county societies at frequent intervals. Your cooperation in bringing them to your members and your comment as to the value of this method is urged.

The following section of the report is on the general problems posed by the C.P.S. Study Committee.

Following a long series of criticisms of California Physicians' Service by members of the California Medical Association, the House of Delegates at its annual session in May 1951, authorized a study committee to see what could be done. A very capable and devoted group of leaders in California medicine, under the chairmanship of Dr. Wilbur Bailey, held many study sessions, met with many interested groups of people and presented two reports: an interim report presented to the House of Delegates in the spring of 1952 and a final report presented to the interim session in 1952. The final report went to two reference committees for study and was acted upon at the regular annual session of the House in May 1953.

The recommendations of the reference committees, adopted as the action of the House, provided in part as follows: "that the C.M.A.-C.P.S. Study Committee report be referred to the Medical Services Commission for further study and such action as that body may deem advisable and necessary," and that "It is further recommended that the Medi-

cal Services Commission report to the House of Delegates through the Council of the C.M.A. at the next regular session of the House concerning any additional information or experience which may have been acquired concerning the program and to make any additional recommendations the Committee may then deem advisable."

The Medical Services Commission has made a detailed study of the interim and final reports of the C.P.S. Study Committee, and in addition has continued a very active study of the problems considered in the reports.

We find that the C.P.S. Study Committee was instructed "to ascertain the expectations of the medical profession of California in regard to C.P.S. The function of this committee shall be to make a careful study of C.P.S., as related to the operations of private insurance companies and other prepaid medical care groups, and to determine the future role of C.P.S. in the whole field of voluntary prepaid medicine."

The Study Committee did examine criticisms of C.P.S. by both physicians and laymen in its effort to discover the reasons for failure of physicians' acceptance and the causes of lay dissatisfaction. It consulted representatives of every interested group and employed experts in the fields of insurance and of consumer research. It found that "no final answer to the many problems of health insurance can be written today" and it suggested that "no one can do more than chart a tentative course of action, leaving always ample room for shifts of policy as experience proves a given course to be in error."

The Study Committee in its interim report made several valuable suggestions for minor changes in C.P.S. operations. These suggestions are now being carried out.

Although the Study Committee in its further studies found other flaws and areas of disagreement with current C.P.S. operations, it apparently concluded that the major reasons for dissatisfaction, both public and professional, lay in basic difficulties in understanding and use of medical care insurance itself.

The Study Committee then addressed itself to a consideration of the fundamental problems of medical care insurance and developed suggestions for future organization of such insurance which it felt could resolve difficulties now becoming apparent.

The Study Committee recommended development of a plan of indemnity medical care insurance based on a uniform "average fee plan." It described this plan as only a combination of an existing kind of medical care insurance with the extension of an already existing economic trend in the practice of medicine. The Study Committee believed that this plan would retain the time-tested virtues of private medical practice and still fulfill the social need for certain and adequate protection against heavy expenses of medical care in serious illness.

The Study Committee concluded that medical care insurance is the task of the medical profession as a whole. It is not one which may be handed to C.P.S. with the demand that C.P.S. alone find the answer. It recommended better integration of the California Physicians' Service with the California Medical Association.

The Study Committee's recommendations did not limit the cooperation of the medical profession to any specific insuror, but recommended that the field of medical care insurance underwriting should be open to any reputable insurance company whose insurance plan and operations meet reasonable standards, equally applicable to all.

However, it felt that the organized medical profession must maintain an instrument in the field of medical care insurance.

It concluded that the objective of C.P.S. should be to serve as the instrument by which the organized medical profession of California could fulfill its obligations to lead in devising sound ways to apply the insurance method to the expenses of medical care.

Some responsibilities included in this objective were laid down in the interim reports of this committee. These were (1) to provide a method of insuring against the costs of "catastrophically expensive" illness for those whose need for it is real—remembering that what constitutes a "catastrophically expensive" illness varies with the economic status of the patient; (2) to help in keeping medical care free from political or commercial domination; (3) to continue to provide a "laboratory" under medical control for further exploration in the still fluid field of insurance for medical care expenses; (4) to represent the medical profession in negotiations with organized groups, governmental or private.

The Study Committee recommended a gradual conversion of the C.P.S. service program to an "average fee plan" indemnity type operation.

The committee recognized, however, that the problem of conversion of C.P.S. is complicated. C.P.S. is a going concern that has done a good job in the face of many difficulties. C.P.S. is the largest individual carrier of medical care insurance in California, with commitments far into the future.

The Study Committee therefore recommended creation by C.P.S. of an indemnity type "health insurance" corporation, not affecting its present operations, which would give the "average fee plan" a chance for gradual evolution as its practical problems become demonstrated by experience. It felt that this plan should give principal emphasis to expenses of medical care for serious illness and should make full use of coinsurance to control overuse of benefits.

The Study Committee finally proposed a series of specific recommendations for adoption by the House of Delegates. These were designed to implement the above suggestions and the adoption and operation of the average fee plan indemnity program.

The Medical Services Commission in its further study is greatly impressed by the observations of Dr. Ernest Dichter (in a special psychological study

of C.P.S. problems made for the C.P.S. Study Committee). Dichter pointed out that it was necessary to get to the basic cause of the illness rather than just to list symptoms; that it was necessary to abandon a systematic enumeration of complaints and to work out practical remedies based on a valid diagnosis of the problem. He observed that "no matter how many investigations you conduct you will not find mysterious goblins who caused all the difficulties, who can be blamed and thrown out." He felt that the answer to C.P.S.'s problems did not lie in a correction of contract provisions or actuarial arrangements and that a complete change in the philosophy and outlook of a large majority of C.P.S. doctors was really needed. He stated that "a meaningful and symbolic change in C.P.S. and its goals is necessary for success." His investigators learned that both doctors and patients complained of loss of freedom and ability to control their own affairs and that it was obvious that some change would have to be instituted to make them feel that they alone, not an insurance plan, were in a position to control their own destinies. Dr. Dichter concluded that insurance must give the doctor "a new moral foundation and justification of his position."

The Medical Services Commission feels that the C.P.S. Study Committee did make an excellent response to the challenges laid down by Dr. Dichter and did propose, in its "average fee plan," an excellent means of correcting the basic problems and the disturbed psychological atmosphere surrounding medical care insurance today.

The commission believes that the proposed plan has great merit; that it should be given wide trial on a pilot basis to determine its strength and weakness, and that it is deserving of much greater sympathy and understanding than it has so far received.

The commission has therefore undertaken a restatement of the proposed plan and the thinking behind it. We have substituted the term "usual fee indemnity plan" as more accurately descriptive and acceptable than "average fee plan." We have also changed relative emphasis in certain areas of the basic report and expanded it where such expansion seemed desirable for clarification. This restatement of the portion of the Study Committee report dealing with problems of medical care insurance and the usual fee indemnity plan is now available to interested individuals of the C.M.A. House of Delegates, to study committees of any county society, or to any other person interested in the basic problems concerned. It is presented by the commission in the frank hope of securing increased sympathy and understanding of the fundamental problems.

A brief statement of our concept of the "usual fee indemnity plan" and a slight expansion of this concept by a tape recording and film strip will be presented.

It is by no means proposed by the Medical Services Commission as a panacea to all your problems; it is presented to you merely in the hope that it will challenge your thinking and that you will reevaluate your own position in this whole problem. I will now read that which is now being distributed:

"Prepared and presented by the Medical Services Commission of the California Medical Association.

"*The Usual Fee Indemnity Plan:* If a physician charged the same fee for the same service to each of his patients it would be possible to write an indemnity policy based on these fees, which would give real certainty and adequacy of reimbursement to the patients receiving his services.

"Similarly, if each physician charged the same fee for the same service to each of his patients, and if most of the physicians in a community had very similar fees, it should be possible to write an indemnity type insurance contract which would give certain, adequate reimbursement to the patients of this majority group of physicians.

"If, on the other hand, a patient sought care from a physician whose individual fee schedule was higher than that of most of the physicians in his community (by reason of unusual skill, experience or prestige) so long as the higher schedule was known to the patient, he would still have certainty of reimbursement to the extent that he would know exactly how much greater his expenses would be than the reimbursement schedule, and he would then knowingly and willingly be accepting less than complete reimbursement from his insurance.

"In the same way, any physician anticipating unusual difficulties in the care of a particular case should have the privilege of charging more than his usual fee by reaching an understanding with the patient concerned; after explanation of the unusual problem, before service was given. If there were to be any deviation from the usual fee, the patient should know it in advance.

"Briefly, the usual fee indemnity plan proposes that the insuring agency repay to the insured person most of what he has spent for medical care. If his physician charges him the usual fee charged by most doctors in his community, the amount repaid will be nearly all he has spent.

"This is just what most owners of medical care insurance thought they were going to receive when they bought their insurance."

The film now about to be presented to us is available for any interested group in any of your county medical societies.

. . . Dr. Teall presented a series of slides to the group. . . .

DR. TEALL: The Medical Services Commission has made specific review of the recommendations by the C.P.S. Study Committee for implementation of its suggestions. It will be remembered that recommendations 1, 2, and 3 were adopted by the House of Delegates at the time the basic report was submitted. Pursuant to the recommendations, the House of Delegates of California Physicians' Service has been abolished and its functions transferred to the House of Delegates of the California Medical Association. The Council of the California Medical Association has become the nominating committee for

California Physicians' Service trustees, and the Board of Trustees of California Physicians' Service has organized and financed a subsidiary non-profit corporation qualified under the insurance laws of California to write indemnity type health insurance embodying the ideas proposed.

The succeeding recommendations placed emphasis on urging that each individual physician accept the principle of individual uniformity of fees, that each component county society be urged to formulate a fee schedule, that the California Medical Association attempt the formulation of a state fee schedule, and that machinery for the handling of fee complaints be established. In addition, it was recommended that a continued program of education on problems of medical care insurance be instituted by the California Medical Association, both for the public and its professional members.

As will be apparent, there is rapidly developing in California an increasing interest in the principle of individual uniformity of fees. Further urging in this direction by the House of Delegates is probably unnecessary at this time.

In general, the same may be said of each other recommendation made by the Study Committee; either the urging of the membership toward certain steps has already been accomplished by the basic presentation of the report itself or the steps recommended have already been begun in other connections and need only to be extended and amplified as experience develops in this field. The Medical Services Commission, therefore, recommends no specific action by this session of the House of Delegates on the implementing recommendations made by the Study Committee at the time of its final report.

It should be remembered that the House of Delegates adopted the reports of two reference committees which provided in part that "pilot plans should be encouraged in order that practical experience in the operation of such a program may be gained"; that "it would be advantageous for the various component medical societies to undertake promptly the basic work of establishing fee lists for use in their respective areas"; that "it would be advantageous for those counties wherein the membership is strongly in favor of these proposals to initiate such a program at the earliest opportunity," and "that any component county medical society which wishes to institute an active program in accordance with these proposals do so under the observation and with the cooperation of the Medical Services Commission."

With the rapid growth of closed panel prepaid group plans throughout California an increasing number of county medical societies and individual physicians have become acutely aware of the need for intensive investigations of the basic problems of medical care insurance and the reasons for dissatisfaction with existing forms of such insurance. Many county medical societies have undertaken studies and several are now instituting programs very similar to the "usual fee indemnity plan."

It would appear desirable to extend a greatly increased understanding of the basic problems concerned. To this end the Council of the California Medical Association has instructed the Medical Services Commission to stimulate the formation of individual study committees by each county society. It is anticipated that each such committee will make itself thoroughly familiar with current studies in the field, with significant reports and discussion, and will organize its own discussion meetings with representatives of labor unions and other employed groups in its own areas with a view to an increased understanding of the desires of purchasers of medical care insurance. The Medical Services Commission will provide reprints of pertinent study materials and proposed programs for such study sessions, and will stand ready to send one or more of its members to meet with any county society study committee at any time with a view to increased understanding or to development of a useful program in this field.

Dr. Hodges has indicated to you already that he has made many visits to county societies. About half have C.P.S., and the commission will be happy to have further recommendations of C.P.S. to give them advice as to the trends and developments in this field.

Throughout California a number of county societies have already had extremely interesting experiences in this regard. Believing that the value of their experiences will be enhanced by sharing with other members of the California Medical Association, we are pleased to present at this time a series of reports from the areas of the state where developments have been most active and most significant.

. . . Reports were made by Drs. Abraham Sirbu of San Francisco, George Waters of Santa Clara County, B. J. Korn of San Pedro, M. C. Todd of Long Beach, and J. Philip Sampson of Santa Monica.* Dr. Teall then resumed the report of the Medical Services Commission. . . .

DR. TEALL: The Medical Services Commission wishes to point out a few pitfalls that are already developing.

First, California Physicians' Service is your organization; it has established an indemnity corporation for the purpose of giving the usual fee indemnity plan an accurate and fair trial. It is suggested that county societies desiring to undertake such a usual fee indemnity program make their first approach to California Physicians' Service as the insuring agency rather than to commercial carriers in the field.

Second, it is urged that before any county society or any important branch of any county society take any final action, this action be reported to the Council of the California Medical Association for coordination, in order that development may follow a con-

*Transcripts of their remarks are available to any delegate or alternate or any county medical society on request to the California Medical Association, 450 Sutter Street, San Francisco 8.

sistent pattern, that the developments in one area of the state may not work to the great disadvantage of other areas, and in order that small groups of physicians may not be panicked by the apparent emergency nature of problems developing in their own area into taking steps which are not conducive to their own long-term best interests.

While the C.M.A. should not attempt to impose any program on any of its member societies or physicians, it is felt that a common exploration of problems and a coordination of steps can avoid a great deal of misunderstanding and misdirection and can lead to mutual benefit as experiences of one area are pooled with the experiences of another area to find more satisfactory answers to the problems which we all face. (Applause.)

SPEAKER CHARNOCK: The very comprehensive report of the Medical Services Commission will be referred to Reference Committee No. 1.

Additional resolutions or amendments. Are there any additional resolutions or amendments to be presented?

Again we will give you the information on the reference committees. Reference Committee No. 1 will meet in the Artists' Room on the mezzanine floor. Dr. Moore, when is your committee prepared to meet? Immediately following adjournment.

Committee No. 2 has been given the resolutions produced by Dr. Bender on economy. They will meet in the Hawaiian Room. Dr. Ward, chairman. They will meet immediately following adjournment.

Reference Committee No. 3, Dr. Rosenow, chairman, will meet in the Cable Car Room on the mezzanine floor.

Reference Committee No. 4, Dr. Albert G. Miller, chairman, will meet immediately after adjournment of this session.

C.P.S. Reference Committee, Thomas N. Foster, chairman, will meet in the Green Room on the first floor immediately after adjournment.

I might say that when you have the privilege of being in the reference committee that is the only opportunity you will have to meet the entire committee for either the emergency resolutions or for the regularly introduced resolutions.

VOICE FROM THE FLOOR: Could I ask a favor? That you announce the other people of my committee. Just call out their names.

SPEAKER CHARNOCK: That was announced this morning: Dr. Ward, Dr. Vaughn, and Dr. Hill.

This will be the last opportunity you will have to present resolutions and/or amendments for this session.

We will now entertain a motion for recess. We will meet at 9:30 in this room tomorrow morning. All those in favor. The "ayes" have it.

. . . The House of Delegates recessed at 4:45 p.m. . . .

Sunday Morning Session

The Interim Session of the House of Delegates reconvened at 10:00 a.m., December 13, 1953, Dr. Donald A. Charnock presiding.

SPEAKER CHARNOCK: Gentlemen, please be seated. Dr. Armanino, make your report, please.

DR. ARMANINO: Mr. Speaker, a quorum is present.

SPEAKER CHARNOCK: Thank you, Dr. Armanino. A quorum is present and unless we hear anything to the contrary we will accept a visual roll call as evidence of constitution of this House.

The House will please be in order. The first order of business, ladies and gentlemen, is the report of the Committee on Public Policy and Legislation by Dr. Dwight Murray. Dr. Murray.

DR. MURRAY: Mr. Speaker, Mr. President, and members of the House:

There are just a few things that I wish to say in a general way, following which the real report will be given by Dr. Dan Kilroy. I have been necessarily absent from some of the meetings of the Council and Dr. Kilroy can report directly some of the things that I may not be able to report. However, I wish to say in a general way that everything has been going along very well from a legislative point of view, and we are extremely happy with the outlook of the new Governor. Our Governor sees things in a way that we have not been accustomed to in the past few years from the top office in the state and it is very helpful.

I wish to say this, however, that the Governor cannot do everything himself, so let's not be sitting on our hands. We have a lot of work to do. Remember, 1954 will be the year in which it will be necessary to reelect or to elect new men to the Legislature, the entire House of the Assembly, 80 members; half the Senate, 20 members, will have to be reelected, as well as other very important offices in the state. So I think if the members of the California Medical Association keep up their past vigilance and their past activity that all will go well and I confidently expect that to be done, because in all these years I have never known when the chips were down the members of the California Medical Association to fail. I would like to present, Mr. Speaker, Dr. Dan Kilroy, who is a member of the Legislative Committee. (Applause.)

REPORT OF COMMITTEE ON PUBLIC POLICY AND LEGISLATION

DR. KILROY: Mr. Speaker, members of the House of Delegates:

My previous report made at the last session of the House of Delegates was, of necessity, incomplete as the Legislature was still in session and therefore the fate of many bills affecting medicine was, at that time, not known. It is the policy of your Legislative Committee, in considering bills affecting the practice of medicine, to determine whether that particular bill is in the best interests of the public. Numerous bills are introduced which we feel are good bills

in that they will improve the public health and conversely many bills are introduced which we feel would be extremely adverse to the public good. Measured upon that basis, no bill was passed at the last session of the Legislature which could be classified as adverse to the public good from a medical standpoint. On the positive side numerous measures received approval which we felt were good bills.

This record leads me to a reiteration of a statement which I made at the time of my last report when I stated that the legislators as a whole are serious and intelligent men and women who place the good of the people first in their considerations of the many measures introduced and with that type of yardstick against which a bill was measured, bad legislation met its inevitable end.

Legislators, in spite of their wide and varied knowledge, are not expected to have a full fund of information on each and every subject and certainly medicine and public health are fields of knowledge not possessed by many. As a result, we, as doctors, have inherited a responsibility to apprise our legislators of that which we feel to be good or bad in any particular bill affecting the public health.

Such information is presented to the legislators by various methods, one of the most important of which is contact between an individual legislator and his family doctor. An Assemblyman or Senator will have a considerable faith and respect for the opinion of his family doctor and may often consult him as to the merits of a particular piece of legislation. Only one yardstick need ever be considered by the family doctor in rendering his opinion: Is this measure beneficial or not beneficial to the people?

Many doctors throughout the state of California have given liberally of their time in order to bring their special knowledge to the attention of the legislators and I wish to thank these doctors. Innumerable times we have called upon Dr. Louis Jones of Roseville, Wilbur Bailey of Los Angeles, Henry Gibbons and Clayton Mote of San Francisco, Henry Eagle of Redding, Donald Meamber of Yreka, William Quinn of Los Angeles, John Green of Vallejo, Alf Haerem of San Mateo, and numerous other doctors of the state of California. It is this type of cooperation which so greatly assists your legislative committee in carrying out the work assigned to us by this body.

It might be easy for some of us, in view of the political trends on both the national and state level, to feel complacent and to think that with a more conservative regime at the helm of government that our numerous problems which arose in the past will never rise again. To so think is to delude ourselves and to make easier the task of the social planners and of those selfish elements who attempt to attain through legislation that which they are incapable of attaining by education.

To those who think that the danger of a system of socialized medicine is long past, I say that at no time in our history have we had more socialization of the medical profession than we have right now. You all are aware of the degree of medical socialization which has taken place under the Veterans Administration and you are equally aware of the various state agencies for the care or rehabilitation of patients operating under a system of socialization of medicine. It is my prediction that there will be a continuing pressure exerted from many sources for an expansion of those welfare plans so far instituted on both the state and national levels. Although we have now in office administrators who cannot be classified as social planners in our present concept of the terminology, nevertheless other forces are constantly working to extend their plans for control of the people through increasing dependence upon state-planned welfare.

The legislative session during 1954 should present no great problems as this is the budget session, but I am certain that at the 1955 legislative session numerous measures will be introduced adversely affecting the public good from a medical standpoint. Therefore I hope that we will have the same splendid cooperation in our future legislative problems that we have had from the medical profession of this state over the past year.

From a practical standpoint we must remember that 1954 is an election year, at which time all members of the Assembly and one-half of the Senate will be candidates for election or reelection. It is our responsibility, not only as doctors but primarily as citizens, to carefully screen these candidates and to do all in our power to see that candidates are elected who will bring us good government and whom we feel will always consider the good of the public first on all measures of legislation introduced, whether they be medical or otherwise.

On November 10 your Legislative Committee and Dr. Frank MacDonald and Mr. Ben Read met with Governor Knight, at which time we offered to him the services of the doctors of California to aid him in his effort to bring good government to the people of this state. We had a most cordial reception and the Governor's assurance that he would value highly the advice which we might offer to him throughout his term of office.

On behalf of our chairman, Dwight Murray, Dr. James Doyle and myself I again wish to say thank you for the splendid cooperation which we have in the past received, and to thank you in advance for that cooperation which I know we shall again receive at future legislative sessions. (Applause.)

SPEAKER CHARNOCK: The House is well aware that we had expected to receive this report yesterday, and it would of necessity go to Reference Committee No. 1. It cannot go there now. I should like to entertain a motion that we adopt this report as presented. It has been moved and seconded that we accept the report of Dr. Kilroy. Is there any discussion? Those who are in favor of the report signify by saying "aye." To the contrary? It has been accepted. Thank you, Dr. Kilroy. Dr. Murray.

DR. MURRAY: Mr. Speaker, members of the House: Again I have a very pleasant task to perform

at this time. It is something that I have great pleasure in doing. The Governor in considering his various appointments over the state, of course considered the Department of Mental Hygiene as being a very important department in the state. He therefore wished to appoint a man who was very capable and outstanding to that position.

The first requirement that the Governor wished of that man was that he should be a Californian, a man who came from California and was familiar with the problems in California, rather than to import somebody from out of state.

The man he chose happens to be a past member of this House of Delegates; he has also been a past president of the Napa County Medical Association while serving in the capacity of superintendent of the hospital at Napa a few years ago, showing his interest in the medical affairs of our county. He was unanimously elected president and served in that capacity very well. This man is not a stranger to California medicine, and it is with great pleasure that I present to you the new director of the Department of Mental Hygiene in the state of California, Dr. Walter Rapaport, who has recently been dean of Agnew Hospital at San Jose.

DR. RAPAPORT: Mr. Speaker, members of the House of Delegates: First, may I express my feelings of honor and privilege to have been able to appear before you at this moment. I remember quite well having sat in the chairs out there and I enjoyed that. I was privileged so to do. I can't express any idea about what my policies will be, excepting to assure you that my first one certainly will be that the right thing be done for the people of our state.

I can't tell you any more strongly than Dr. Kilroy has told you concerning how much effort must be made even though there is not going to be a legislative session in 1954, except for budget purposes, but that will give the opposition time to prepare themselves. Therefore, unless organized medicine is alerted and also prepares itself, it may be in for some unfortunate surprises in 1955. So I caution you that this matter must be given your constant consideration.

And now, ladies and gentlemen, I want to thank you for having honored me, and Mr. Speaker, thank you very much for giving me this opportunity.

SPEAKER CHARNOCK: Thank you very much, Dr. Rapaport, for visiting us. The Council has asked that Dr. Henry Randel, the chairman of the Committee on Rural Health, make a short report to you. Dr. Randel.

COMMITTEE ON RURAL HEALTH

DR. RANDEL: Mr. Speaker, members of the House of Delegates:

I don't know exactly why the chairman of the Council chose to have a report of the Committee on Rural Health given this morning. Perhaps the mere fact that the Department of Public Relations felt that there might be something valuable in the experiences of some of us is reason enough.

I frankly suspect that the Speaker likewise felt that something in these remarks would be fitting for a Sabbath morning.

The Committee on Rural Health in the California Medical Association has dedicated itself to the principle of increasing physician participation in community affairs. It is not a new idea, particularly. The principle was enunciated many times by the Council on Rural Health of the A.M.A. and it is voiced by many others.

Too often we have been unaware of its importance. The mere fact that we have interested ourselves in this type of thing has by necessity led us into strange places with many strange people.

By necessity our activities have cut across the activities of many of the constituted departments. We find we are encroaching perhaps on the activities of the Committee on Public Health and on the activities of the Committee on Medical Services, if you please.

To date we hope at least that we have not neutralized any of the activities of those excellent groups.

By definition it would appear that a committee on rural health should concern itself with rural areas, but it soon became evident that no hard and fast line could be drawn, that many metropolitan centers had their fringe or rural areas in which problems occur so that at the outset, perhaps, we found ourselves in the position of searching for problems. We now find ourselves having to give priority to the various issues as they arise.

One of the first matters that came to our attention and which was sorely neglected by us in our profession was the matter of migrant labor in the state of California. This consists of 374,000 people who have been selected by certain groups to be classified into a segment that requires special consideration. Hence there were those who felt it necessary to provide housing, clothing, medical care service, and perhaps a ration of liquor. There are those who still feel that we should look at that group in that light, but I am pleased to report to you that 85 per cent of this segment of our population has taken its part in society, recognizing its responsibility, becoming stabilized, and does not require these many bounties of human endeavor.

The subject of medical service, of course, interested us a great deal, because we found that the public health agencies, I think, in most instances, certainly not seeking for anything, are entering into the field of taking care of these people.

Physicians who were close to them have found themselves not only unrecognized but uncompensated. We are pleased to report that the physicians in the community—I can speak now of the San Joaquin Valley—are taking care of them in a very satisfactory manner and to all concerned.

A great deal of analysis was carried out when certain segments of our people maintained or alleged that areas within the state of California—within the nation as a whole—were not covered by adequate medical service. These allegations were of such weight as to arouse interest in this House, and last year, as you recall, resolutions were passed by this House enabling studies to be made determining the accuracy of these statements. The Council of the California Medical Association felt that the Committee on Rural Health was the natural agency or natural place for this consideration.

The report of our subcommittee made an exhaustive study of this subject and it is now in the hands of the Council. I commend to your reading the results had in making three rather pointed recommendations. I will brief them.

It was more or less demonstrated that there were only a very few if any areas within the state that did not have adequate medical coverage. There is a vast difference in this and the type of medical coverage they feel they need and desire.

The committee learned there are those who feel there should be a doctor at every corner. Obviously that is wrong. The recommendations were to the effect that continued studies should be made to determine what constituted a realistic low for a practitioner of medicine, particularly a general practitioner. There are no yardsticks. No one can answer that; all the figures available in connection with these accusations were gleaned from the files of the Social Security Administration and were purely theoretical and were based on no studies.

The committee has recommended that a yardstick be developed and it can be developed by close cooperation. The California Academy of General Practice is particularly interested in this matter. Out of it, I feel, will certainly come a satisfactory answer.

It was felt that continued effort should be made to make the community conscious of what part it must play in attracting a physician to the practice of medicine within its area. The setting up of physical facilities is part of the work being done along that line. We feel it was mentioned that it should be evolved whereby young men in training in schools be inspired to go into these areas and remain there; to point out how they can accomplish their end by making this contribution.

So, enough for that. At the moment the Committee on Rural Health has been responsible for the establishment within the state of California of a Rural Health Council and a group of people which by mere virtue of sitting down around a conference table can work out many of the problems of mutual concern. The council consists of representatives of the State Department of Public Health, from the farm bureau groups, from the farm groups, the California Federation of the Congress of Parents and Teachers, if you please, ourselves, and the Agricultural Extension Services which serves as a catalyst agent, so to speak, holding the group together. It is amazing the good will that has been the outcome of that relationship, but it is still in the embryonic days. We feel we as physicians will do well to continue our efforts.

As I said at the outset, these various assignments and invitations we have received by showing interest in what the lay people, the citizenry, have to offer; many of them, incidentally, are interested in health subjects.

Our activities have brought us in contact with strange people and strange places. It has taken me a whole year to admit that. As a result of being chairman of this committee I was invited to be a member of one of the Governor's advisory boards, of which there are a great many. This committee dealt with youth and children and had the express responsibility of studying delinquency within the state and coming up with an answer. The committee was made up of sincere people. There was one physician represented on the committee heretofore. One at one time, he attended one or two meetings and felt that he had more urgent business elsewhere, a situation in which I found myself on more than one occasion. But I have stuck it out more or less and now there has been a change in color, as evidenced by the presentation we had yesterday. I feel a little bit freer to admit to this House that I have taken part in such an activity and have profited thereby as an individual. Whether we have constructed anything remains to be seen. The people who make up this type of organization are well known to you, but I can probably best describe the type of individual that makes up the committee by describing one particular person, a physician's daughter who had reached her senility in social life and had achieved all that "society" could give her. Finally she realized the cold fact that she had contributed nothing to the welfare of her fellow man. Hence, she took a course in first aid at the Red Cross. She became particularly proficient in artificial respiration, so she received her certificate of award and went out to save a life. She could find no one to save. At last, however, she saw an individual in the street lying on his abdomen. She rushed up, straddled this individual and proceeded to give him artificial respiration. He took it for about two minutes, then said, "I don't know what you're trying to do, lady, but I'm holding a lantern for a man down here in the manhole." She is a member of that committee.

Through the years, however, the relationship has become quite warm, instead of being strained. As a practicing physician and a member of the California Medical Association, I find myself now in the pleasant position of being a good influence. In two months the Governor has directed that the conference on youth and children be held in the city of Sacramento in which there will be 2,000 participants. The subjects to be discussed are foreign to most of us, subjects such as "Strengthening Family Life" and "Handicapped Children," which is a little bit offensive to many.

Well, I want to make this short. We can report that these subjects are now being definitely influ-

enced by the physician members of that committee of which now there are two practicing physicians, and these people look to you for advice. I frankly feel that many times we have found ourselves face to face with unpleasant situations because we haven't been willing to enter into the spirit of things. There are many challenges in this particular field. They take you away from your golf, sailing, and other activities; they even interrupt and interfere with the practice of medicine, but I am sure by entering into these activities, by seeking them out, if you please, by becoming part of them and throwing your weight around, we will gain more friends than lose them. I think that most of us will agree that many of our deliberations are concerned with what we as a group can get out of living. We find ourselves here being good for this or good for that schedule, or improving schedules or an improved set of conditions. Perhaps we might find good for something.

SPEAKER CHARNOCK: The report was put in at the request of the Council. No action is required by this House other than to thank Dr. Randel for giving this report for the second time today, and we do thank you, Dr. Randel.

VICE-SPEAKER BAILEY: We will have the various reference committee reports. The first one will be Reference Committee No. 1. J. W. Moore of Ventura. Dr. Moore.

REPORT OF REFERENCE COMMITTEE No. 1

DR. MOORE: Mr. Speaker, and members of the House of Delegates: Reference Committee No. 1 has had before it for review the report of Legal Counsel, the report of the Blood Bank Commission, the report of the Council and the report of the Medical Services Commission. I would first like to thank the members of the reference committee, Dr. Dave F. Dozier of Sacramento and Dr. James B. Graeser of Oakland for their assistance in preparing the report; and I would like to thank all those appearing before the committee.

Our committee notes with pleasure and approval the report of John Upton, chairman of the Blood Bank Commission. California has been a pioneer in the development of blood banking, the development of a statewide blood banking system, and under Dr. Upton's direction is continuing on a national level.

The committee also listened with interest to the informative report of the Legal Counsel and recommends its approval.

Mr. Speaker, I move the adoption of this section of our report.

VICE-SPEAKER BAILEY: Is there a second to this? Any discussion? Those in favor of adopting this section of the report say "aye"; Opposed? It is so ordered.

DR. MOORE: The committee reviewed the report of the Council and there are four items in the report upon which the committee feels some comment is deserved.

Item 1. In discussion before the reference committee, it was pointed out that certain fringe benefits incorporated in the health and accident insurance offered by the Charles O. Finley Company might not be desired by all members of the profession. It is the understanding of the committee that this insurance program comes up for review every two years. We recommend that all members of the Association who carry this insurance consider this matter and make whatever recommendations and suggestions concerning it that they might desire to the Insurance Committee. The Insurance Committee can then recommend such revision as might seem appropriate at the time the contracts come up for review.

I move the adoption of this section of our report.

VICE-SPEAKER BAILEY: It has been moved and seconded. Any discussion? All those in favor will say "aye." Opposed? The "ayes" have it.

DR. MOORE: Item 2. The Council has recommended approval by the House of Delegates of some ten or more fees in the schedule of C.P.S.

It was further brought out during testimony before our committee hearing that these changes in these specific fees were to correct preexisting inequities in the fee schedule; it was further brought out that inequities to the beneficiary members of C.P.S. are being similarly adjusted.

It was further pointed out that these corrections of inequities are being accomplished without increases in the dues paid by beneficiary members. The committee was also informed that additional studies of the C.P.S. fee schedule are being carried out and further adjustments will be made in the future.

In order that the House of Delegates be properly informed, the specific fees that have been changed are as follows:

001 Office Visit (first call)—Routine History and Physical Examination—$9.50.

003 First Home Visit—Daytime, $7.00; nighttime, $9.50.

004 Additional persons treated in same household on same visit, each $2.75.

005 Consultation requiring complete examination in which the case is returned to the referring physician. Hospital, $20.00; home, $25.00.

006 Consultation for a given system not requiring complete examination and wherein the consultant continues with the case, $12.00.

008 Office visit, complicated cases—$7.50.

009 Detention with patient in critical condition, per hour—$20.00.

010 Mileage from three miles beyond city limits, per mile, one way—$1.00.

011 Follow-up office visits—$3.35.

The committee recommends the approval of this action on the part of the Council. Mr. Speaker, I move the adoption of this section of our report.

VICE-SPEAKER BAILEY: It has been moved and seconded. Any discussion? All those in favor of raising the fees will say "aye." Opposed? The "ayes" have it.

DR. MOORE: Item 3. The report of the Council also stated the Council expected to submit a resolution to the House concerning eliminating from the business brought before the House of Delegates certain ill-advised language which might create ambiguity or cause an undeserved reflection on the Association. The committee was informed at this hearing that the Council has decided to defer submitting such a resolution at this time pending further study. The committee feels that further study should be given to this subject so as to avoid the pitfalls of unfavorable publicity.

Item 4. The committee was interested in the action of Council in taking over Audio-Digest. This promises to be a project of value in many ways. The committee recommends its approval.

Mr. Speaker, I move the adoption of this section of our report.

VICE-SPEAKER BAILEY: It has been moved and seconded. Is there any discussion? All those in favor say "aye." Opposed? It is so ordered.

DR. MOORE: The committee reviewed the report of the Medical Services Commission. The committee notes with approval that some of the county medical societies are instituting pilot programs on the usual fee plan. The committee wishes to emphasize the importance of the recommendation of the Medical Services Commission that county medical societies undertaking promotion of the usual fee plan should keep the Medical Services Commission informed of their activities. It should also be pointed out that counties contemplating institution of such a plan can gain valuable information and assistance from the Medical Services Commission, and by consultation with societies which have the plan in operation.

The committee wishes to commend the Medical Services Commission for the tremendous amount of work it has done and for its conscious, temperate approach to the manifold perplexing problems.

The committee recommends the approval of the report of the Medical Services Commission.

Mr. Speaker, I move the adoption of this section of our report.

VICE-SPEAKER BAILEY: It has been moved and seconded. Any discussion? All those in favor say "aye." Opposed? It is so ordered.

DR. MOORE: Mr. Speaker, I move the adoption of our report as a whole.

VICE-SPEAKER BAILEY: It has been moved and seconded. Any discussion? All those in favor say "aye." Opposed? It is carried.

Thank you very much, Dr. Moore. (Applause.)

VICE-SPEAKER BAILEY: We will proceed to Reference Committee No. 3, Dr. Rosenow. We will approve it all at once.

REPORT OF REFERENCE COMMITTEE No. 3

DR. ROSENOW: Thank you very much, Dr. Bailey.

Your reference committee has before it for report at this meeting two resolutions that were re-referred to it and two new emergency resolutions. Your committee, composed of Drs. E. C. Rosenow, chairman, Helen Weyrauch and Carl M. Hadley, has held hearings on these four resolutions and submits the following report:

Resolution No. 14—Re-referred. Introduced by Allen Hinman, San Francisco.

After many suggestions from members of the House who appeared before it, your committee offers the following substitute resolution:

Resolved, That the House of Delegates of the California Medical Association reaffirm the principle that the patient should have absolute freedom to choose as his attending doctor any duly licensed physician and surgeon who is willing to serve him.

Your committee recommends that this substitute resolution *do pass*.

VICE-SPEAKER BAILEY: It has been moved and seconded. Any discussion? All those in favor? Opposed? It is carried.

DR. ROSENOW: Resolution No. 19—Re-referred. Introduced by Francis Rochex, San Francisco.

The committee wishes to introduce the following amended resolution:

Resolved, That the House of Delegates approve all plans by the A.M.A. that will preserve the independence of the practitioner, maintain the quality of medical care, and at the same time meet the just demand for some type of prepaid medical service, and so memorialize the A.M.A. House of Delegates; and be it further

Resolved, That the C.M.A. delegation to the A.M.A. be requested to make an effort to have legal counsel of the A.M.A. (1) continue to review and restudy the laws (as the anti-trust laws) that hinder in any way the actions of organized medicine in endeavoring to maintain its integrity; and (2) to consider the feasibility of amending existing laws or sponsoring new legislation to accomplish this end.

Your committee recommends that this amended resolution *do pass*.

Mr. Speaker, I move the adoption of this portion of the report.

VICE-SPEAKER BAILEY: It has been moved and seconded. Dr. Rochex.

DR. ROCHEX: Mr. Speaker, and members of the House: This resolution was discussed before the reference committee and the committee agreed in this principle; it was in entire regard with the principles of this resolution. There seemed to be some doubt as to whether or not the A.M.A. had already initiated action along this line or was contemplating doing so. In order to meet this objection it was agreed to add one word to the second resolve and this word was "continue" to review and restudy, to

replace the previous one which merely said review and study. However, when the committee rewrote the first resolve in an effort apparently to make it smooth and more comprehensible, and perhaps in better acceptable English, actually altered the meaning in such a way to make it, I feel, rather inacceptable. May I call your attention to why I consider this to be true. The resolution as amended yesterday read as follows: "Resolved, that the House of Delegates approve formulation by the A.M.A. of plans that will preserve the independence of the practitioner, maintain the quality of medical care and at the same time meet the just demands for some type of prepaid medical service, and so memorialize the A.M.A."

Now, you will note in the mimeographed sheet which you have in your hands that this has been altered to read as follows: "Resolved, that the House of Delegates approve all plans by the A.M.A. that will preserve the independence of the practitioner, maintain the quality of medical care, and at the same time meet the just demand for some type of prepaid medical service, and so memorialize the A.M.A. House of Delegates."

Now, you will note that this alters quite appreciably the intent as indicated by the original motion. That is, we hereby commit ourselves to approve any sort of a plan which the A.M.A. may formulate without ever having seen the plan. It is in essence signing a blank check and handing it to the A.M.A. and asking them to make it out, so I would like to again amend the resolution to the wording which was originally agreed upon and agreed upon by the reference committee at the time to read as follows:

"*Resolved*, That the House of Delegates approve formulation by the A.M.A. of plans that will preserve the independence of the practitioner, maintain the quality of medical care, and at the same time meet the just demand for some type of prepaid medical service, and so memorialize the A.M.A. by the intermediary of the C.M.A. delegates to the A.M.A."

VICE-SPEAKER BAILEY: You know that is an amendment. It has been moved and seconded. We will proceed to vote on that amendment. There is no discussion. All those in favor say "aye." Opposed? The "ayes" have it.

DR. ROSENOW: I apologize to the House of Delegates for any extra time of theirs I have taken in seeming to be obsequious about this resolution. I have no reason to object to the original. The only thing your reference committee was trying to do was to give all credit we could possibly give to the many men not only in the state association but in the A.M.A. who have been working on this problem. We don't object to formulating new plans but we wanted to approve all past, present and future plans. So I don't object at all to these additional objections, Mr. Speaker. I will proceed.

VICE-SPEAKER BAILEY: No, you won't. We have to approve the whole thing first. The resolution as amended is before the House. Those in favor will say "aye." Opposed? Carried.

DR. ROSENOW: We will proceed to No. 4—emergency. Introduced by Leon O. Desimone, Los Angeles:

WHEREAS, The hazard for man and animals from rabies is on the increase; and

WHEREAS, The Council of the City of Los Angeles is considering an ordinance for the compulsory vaccination of dogs against rabies; be it hereby

Resolved, That the House of Delegates of the California Medical Association go on record as favoring such an ordinance, and that copies of this resolution be sent to the president of the Los Angeles City Council, and Mr. Edward R. Roybal, chairman of the Public Health and Welfare Committee of the Los Angeles City Council.

Your committee is in full accord with this resolution and recommends *do pass.*

Mr. Speaker, I move the adoption of this portion of the report.

VICE-SPEAKER BAILEY: Any discussion? Those in favor say "aye." Opposed? Carried.

DR. ROSENOW: Resolution No. 6 — emergency. Introduced by Lester Lawrence, Alameda-Contra Costa County, on insurance carriers.

Your committee is in sympathy with the purposes of this resolution and recommends *do pass.*

Mr. Speaker, I move the adoption of this section of the report.

VICE-SPEAKER BAILEY: It has been moved and seconded. All in favor? Opposed? It is carried.

DR. ROSENOW: Mr. Speaker, I move the adoption of the report as amended *do pass.*

VICE-SPEAKER BAILEY: The entire report as amended. Any discussion? Those in favor say "aye." Opposed? Carried.

Thank you very much, Dr. Rosenow.

DR. ROSENOW: I would like to say one thing. Already I have had inquiries as to when are we going to have a hearing on the crippled children's bill. Last night we called a meeting for this. Dr. Green, president of your Association, gave us additional reasons for this thing, and two people have told me they don't agree with those opinions and so I suggested they write me a letter because it doesn't have to come up until May. I want to close by thanking Helen Weyrauch and Carl Hadley, my fellow committee members, and all of the members of the House of Delegates who came to help us in our deliberations.

VICE-SPEAKER BAILEY: Referencce Committee No. 4, Dr. Miller of San Mateo.

REPORT OF REFERENCE COMMITTEE No. 4

DR. MILLER: Mr. Speaker, members of the House: Reference Committee No. 4, composed of Dr. Thomas A. LaValle of Alameda and myself, has met on one proposal as proposed yesterday by William Bender of San Francisco.

First off, I want to say thank you to the members of my committee and thank you to those of you who came and gave us your opinions and thoughts both now and last May.

And now you will find Resolution No. 2 on page 2 in the resolutions before you. This is a by-law amendment and as proposed would eliminate the interim session of the House of Delegates:

WHEREAS, The House of Delegates, during the annual session of May 1953 changed the status of the interim session from mandatory to optional; and

WHEREAS, Present provisions for the conduct of the interim session require simplification for effective usage; therefore, be it

Resolved, That the following changes be made in Chapter V, Section 7, of the By-Laws:

Paragraph (a): Delete "effective January 1, 1954," leaving provision for the annual session unchanged otherwise.

Paragraph (b): Delete current provision for an interim session, and substitute "During any meeting of the annual session, the House of Delegates may elect to hold an interim session in the last six months of the same calendar year. During such interim session business shall be conducted as in the annual session. The time and place of such interim session shall be determined by the Council as far as possible in advance and notice thereof published in the *Journal* of the Association."

The committee believes that the proposed by-law amendment will serve a useful purpose as the House so desires and will not cause any major alteration of the existing provisions for holding an annual and interim session for this reason. The committee recommends that this be adopted.

The final part of the resolution (2) regarding the $2,000 dues perhaps should not properly be considered by this reference committee. It appears to the committee that the allocation of funds rests in the hands of the Council subject to the approval of the House of Delegates. The committee is confident that any available funds will be properly allocated by the House of Delegates.

Mr. Speaker, I move the adoption of this report.

VICE-SPEAKER BAILEY: All those in favor, say "aye." It is adopted. Thank you very much.

We have the reference committee of C.P.S. Dr. Foster of San Jose.

REPORT OF C.P.S. REFERENCE COMMITTEE

DR. FOSTER: Mr. Speaker and members of the House of Delegates: The only matter of business referred to your C.P.S. Reference Committee was the report of Francis T. Hodges, president of C.P.S. We highly commend Dr. Hodges and believe the House of Delegates shares this sentiment.

It is of interest to note that the Medical Services Commission and the Public Relations Department of C.M.A. have so highly regarded this report that they propose to make it available to all county medical societies on tape recordings.

It is most encouraging to note the development of mutual confidence and cooperation between the profession and C.P.S.

Your committee would like to reemphasize the importance of a portion of this report. Experience has demonstrated that advance planning can avoid situations which later may be much more difficult to remedy. Therefore we feel it most urgent that each delegate, on returning to his county society, convey the necessity of avoiding last minute action in meeting the problems which confront the profession.

Mr. Speaker, I move the adoption of this report.

VICE-SPEAKER BAILEY: It has been seconded. Is there any discussion? All those in favor will respond by saying "aye." Opposed? It is carried.

SPEAKER CHARNOCK: I am calling on Dr. Ward to make comments on the committee.

DR. WARD: Mr. Chairman and members of the House: You noted that I had no report to render this morning and the reason I have no report is that the resolution which came before my committee was not an emergency.

I am here to ask any of you who have sentiments about the resolution that was introduced by Dr. Bender yesterday relative to the editorship of CALIFORNIA MEDICINE and to taking away the alternates of the A.M.A.—if you have ideas on this, we would appreciate hearing about it and will try to give you a report at the next meeting of the House of Delegates.

SPEAKER CHARNOCK: Thank you, Dr. Ward. At this time we will consider the members of the reference committees have been properly thanked for their services.

Mr. Secretary, is there any unfinished business to come before this organization? The secretary records that there is none at this time. Now, we come to new business, and it appears that we are going to have some fun and have an election. And I am going to ask Mr. Hunton to lay the background for this election.

THIRTEENTH DELEGATE TO A.M.A.

MR. HUNTON: Mr. Speaker, members of the House:

The California delegation to the A.M.A. now has 12 members. If we reach a paid-up membership in the A.M.A. of more than 12,000 by this coming December 31, California will be entitled to one more delegate; in that case the delegate who would serve next year must, under the terms of the A.M.A. by-laws, be elected this year. He cannot serve in the year in which he is elected. Therefore, although it appears from our own records that we will not reach that total of 12,000, it may be possible—since they are not reporting the deaths of members as rapidly as we do—it may be that their records will show a membership of more than 12,000 and entitle California to one more delegate. It should be pointed

out that any delegate or alternate will serve only if the A.M.A. records indicate after December 31 that California is entitled to an additional delegate.

SPEAKER CHARNOCK: Thank you, Mr. Hunton. We are now going to have an election for a nebulous position for the dubious honor of being the thirteenth delegate to the A.M.A.

It is fully understood that this position at the present time is not established. Whoever gets elected, if nothing happens by the 31st of December, does not hold office and will not be considered as the delegate when and if we do have a thirteenth delegate.

The chair will now entertain nominations for the thirteenth delegate to the A.M.A. Dr. Sheldon.

DR. SHELDON: Mr. Speaker, members of the House: It is not quite clear to me whether a man nominated for a non-existent office is thereby non-existent or invisible, but without too much trepidation I have pleasure in nominating for this office a man you all know and a man who has been active in medical affairs at the county level and state level for many years. He has for some years been a member of the Board of Medical Examiners. He is a past president of the Los Angeles Medical Association. I have pleasure in nominating your vice-speaker, Dr. Wilbur Bailey.

I would like to make one brief explanation of my action in nominating Dr. Bailey. I am not consistent with the decision of the meeting of the Los Angeles delegation yesterday evening. That meeting was called hastily. I think it was organized, but it was clear to me that it was not necessarily representative of all of the opinion of the delegation from all counties. I therefore make this explanation and extenuation of my actions.

SPEAKER CHARNOCK: The name of Dr. Bailey has been placed in nomination. Dr. Ewing Turner.

DR. TURNER: Mr. Speaker, members of the House: It is with considerable pleasure and pride that I stand before you to place in nomination the name of a man who is no stranger here—the name of a man who is no stranger to organized medicine. This man has worked tirelessly in his entire professional life for the good of organized medicine. This is a man who has for many years served on the Council of the Los Angeles County Medical Association, who served two very successful terms as secretary and treasurer of that organization and who is currently the president of the Los Angeles County Medical Association. Dr. Foster in this past year has done a tremendous amount of good for medicine in our county. I, being secretary of that county medical association, have worked with Dr. Foster. I know the hundreds and hundreds of hours of work he has put in. One of the men from the general practice section of our local association was talking to me yesterday in the hall, and he said, "You know, Dr. Turner, Foster has done more in his one year as president to bring harmony between the general practice section and the specialties than has been accomplished in the past ten years in our local association."

Paul knows the problems of medicine, locally, statewide and nationally. At that caucus that was referred to I had the privilege of presiding. And I would like to bring this to the information of the House of Delegates, that Dr. Foster was unanimously chosen by the Los Angeles delegation at the caucus last evening, and so it is with considerable pride and a great deal of pleasure that I present the name of Dr. Paul B. Foster of Los Angeles.

SPEAKER CHARNOCK: Dr. Kirby.

DR. KIRBY: It has been my privilege and indeed it is a privilege to have worked with Dr. Wilbur Bailey on the Board of Medical Examiners. I am aware of his keen interest in medical affairs and in his ability and acuity in decisions for our medical society. Therefore it gives me pleasure to second the nomination of Dr. Wilbur Bailey.

DR. HINMAN: A point of information. The members of the San Francisco delegation are not quite clear regarding just where this new and nebulous man should come from. Must he come from that great and opalescent section of the state, southern California, or could he come from some other part of the state?

SPEAKER CHARNOCK: The delegate can come from anywhere in the state. The consensus of opinion is that. . . . Dr. Desimone.

DR. DESIMONE: Mr. Speaker, members of the House of Delegates: You have heard about Dr. Foster's qualifications. I am not going to repeat any of them. I think you are all fairly well acquainted with the fact that he could handle anything that might arise. I am here as president-elect of it and I know I represent and voice the wishes of a large segment of our association when I second the nomination of Paul B. Foster as delegate to the California Medical Association.

DR. VAUGHN: We are acquainted with the work of Dr. Foster, his ability, and I would like to second the nomination of Dr. Paul Foster.

DR. SAMPSON: I find myself on the horns of a dilemma. I went to school with Wilbur Bailey. I admire him greatly. I think his ability is unquestioned. I like him personally. I think he is one of the finest men I have ever known. Dr. Paul Foster is a man of integrity. He is a man of high intelligence. I think between the two men there is no choice as far as ability is concerned.

But, gentlemen, the Los Angeles delegation voted by ballot to recommend Paul Foster and if the delegation from the south, from where the delegate is coming, voted for it, I think we should abide by the decision of that group. Otherwise why have the group?

SPEAKER CHARNOCK: At this time the San Francisco delegation has requested a caucus and at this time, if I hear no objection, there will be a ten-minute recess for the San Francisco delegation.

DR. HINMAN: The San Francisco delegation will meet in the California Room on the mezzanine.

SPEAKER CHARNOCK: Will you please get back here in ten minutes?

. . . The House of Delegates had a ten-minute recess. . . .

SPEAKER CHARNOCK: Will you please take your seats, gentlemen.

The chair notes that the San Francisco delegation hasn't returned. The House will be in order, please.

Are there any more nominations for the thirteenth delegate? It has been moved and seconded that the nominations be closed. Dr. Bender.

DR. BENDER: Mr. Speaker, members of the House: I discuss this as an individual, not as a member of the San Francisco delegation. I think we have to depend upon the recommendations of the delegation of any one area. I think it is incumbent on us to follow the advice of the duly elected Los Angeles delegation on the delegate to the A.M.A. I hope that becomes precedent.

SPEAKER CHARNOCK: It has been moved and seconded. Is there any further discussion? Those who are in favor of closing the nominations will signify by saying "aye." To the contrary? They are closed.

The names of Dr. Wilbur Bailey and Dr. Paul Foster have been placed in nomination.

To conserve time we will now call for nominations for the alternate for this thirteenth and nebulous office.

VOICE FROM THE FLOOR: Mr. Speaker and members of the House of Delegates: I would like to place in nomination a man from Los Angeles County, who stands very high in the medical profession and whom we think a great deal of. He is a man who is at present a member of the Los Angeles County Medical Association. He has done a tremendous job on the recent issuance of the health insurance policies of the California Medical Association. He is the vice-president of the national organization which represents his own specialty and is chairman of many other committees, including the economic committee. It gives me great pleasure to place in nomination the name of Arthur A. Kirchner as the alternate.

SPEAKER CHARNOCK: The name of Dr. Kirchner has been placed in nomination. Are there any further nominations?

VOICE FROM THE FLOOR: I move the nominations be closed.

SPEAKER CHARNOCK: It has been moved and seconded that the nominations be closed. Is there any discussion? Hearing none, I declare the nominations closed.

At this time the chair would like to appoint Dr. Robertson Ward, Dr. Allen Hinman, and Dr. Tom Farthing as tellers. You will please come forward and pass out the ballots.

In the interest of economy we have used ballots which have been left over from the years past. Please disregard the numbers during the time that the tellers are passing the ballots, and receiving them and counting them.

Please, will the tellers inspect the badge of each person to whom he gives a ballot?

Write upon the ballot the name of the gentleman you prefer. And the alternate has already been elected, so we do not vote for that—I have failed to mention the fact that Dr. Arthur Kirchner is elected as the thirteenth alternate. (Applause.)

During the time that we are passing out these ballots, voting and the ballots are being picked up and counted, it is my privilege to present to you Dr. Henry Gibbons III, assistant clinical professor of medicine, Stanford University School of Medicine, who will speak to you on the subject, "Review and Revision of Some of the Newer Drugs."

. . . Dr. Gibbons then delivered a paper on new drugs. . . .

SPEAKER CHARNOCK: Thank you, Dr. Gibbons. While the ballots are still being counted we will entertain a motion for the approval of the minutes which are to be edited by the committee. It has been moved and seconded. All those in favor say "aye." To the contrary? The minutes are approved. Is there any unfinished business at this time? The executive committee of the Medical Services Commission will meet at lunch in the Cirque Room at about 10 o'clock. While we are waiting for the election committee to finish its returns I want to thank the past presidents for being here. It is a great pleasure and privilege to have these gentlemen with us. I want to thank also the distinguished guests who came to visit us. I want to thank you, our distinguished scientific speakers, Dr. Shipman and Dr. Gibbons, and all the reference committees that worked so hard, and last but certainly not least, we want to thank all the delegates themselves who broke into their Christmas season to come to this important meeting. It shows a profound and great interest in our Association.

Dr. Robertson Ward, chairman of the elections committee, will please make his report. You will note that the members of the election committee were all from the north.

DR. WARD: There are 201 entitled to vote. We have 199 votes for the candidates. One voted for a prominent member of the Democratic administration in Washington.

The votes were: Foster, 136; Bailey, 63.

(Applause.)

SPEAKER CHARNOCK: Dr. Paul Foster is declared the phantom delegate.

Gentlemen, this concludes the agendum for today. If the House wishes to, it can still meet this afternoon to carry on any business you should like to talk about. If you do not wish that, the chair will entertain a motion to adjourn. The Executive Committee luncheon and the Medical Services Group will meet at lunch at 12:30 instead of 1:00 o'clock as I had announced.

Is there any further business to come before this House?

It has been moved and seconded that we adjourn. All those in favor will signify by saying "aye." To the contrary? We are adjourned.

. . . The House of Delegates adjourned at 12:30 o'clock. . . .

Council Meeting Minutes

Tentative Draft: Minutes of the 403rd Meeting of the Council of the California Medical Association, San Francisco, December 11-13, 1953.

The meeting was called to order by Chairman Shipman in the Green Room of the Fairmont Hotel, San Francisco, at 9:30 a.m., Friday, December 11, 1953.

Roll Call:

Present during all or a part of the meeting were President Green, President-Elect Morrison, Speaker Charnock, Vice-Speaker Bailey, Secretary Daniels, Editor Wilbur and Councilors West, Wheeler, Loos, Sampson, Pearman, Ray, Shipman, Lum, Bostick, Teall, Varden, Heron, Frees, Carey, Kirchner and Reynolds.

Absent because of illness, Councilor Dau.

A quorum present and acting.

Present by invitation were Messrs. Hunton, Thomas, Gillette, Clancy and Pettis of C.M.A. staff; legal counsel Hassard; county society executive secretaries Waterson, Jensen, Geisert, Bannister, Foster, Nute, Thompson, Wood and Donovan; Ben H. Read of the Public Health League of California; Dr. Wilton L. Halverson, state director of public health; Dr. Walter Rapaport, state director of mental hygiene; Mr. K. L. Hamman, executive vice-president of California Physicians' Service; Dr. Francis Scott Smyth, dean of the University of California School of Medicine; and Drs. Francis J. Cox, C. A. Broaddus, Edward Rosenow, Jr., Berthel Henning, John R. Upton, Leslie Magoon and Henry Randel.

1. *Minutes for Approval:*

(a) On motion duly made and seconded, minutes of the 402nd meeting of the Council, held October 17, 1953, were approved.

(b) On motion duly made and seconded, minutes of the 237th meeting of the Executive Committee, held May 28, 1953, were approved.

2. *Membership:*

(a) A report of membership as of December 10, 1953, was received and ordered filed.

(b) On motion duly made and seconded, 35 members whose 1953 dues had been received since the last Council meeting were voted reinstatement as active members.

(c) On motion duly made and seconded in each instance, seven applicants were voted Retired Membership. These were: Evelyn Hart Case, Edward R. Guinan, Alameda-Contra Costa; Pina M. Welbourn, Los Angeles; Herman Baer and Claude H. Church, Riverside; E. G. Osnes, Solano; Fred R. DeLappe, Stanislaus.

(d) On motion duly made and seconded in each instance, ten applicants were voted into Associate Membership. These were: Glen W. Kent, J. G. Roney, Jr., Alameda-Contra Costa; David Zinke, Imperial; Roger O. Egeberg, Los Angeles; John E. Eldridge, Edward P. Kunkel, San Francisco; Duane D. Deakins, San Joaquin; John Atkinson, Norman R. Rogers, Santa Clara; John N. Clark, Solano.

(e) On motion duly made and seconded, reductions in dues were voted for four applicants because of illness or postgraduate study.

3. *Financial:*

A report of bank balances as of December 10, 1953, and a report of revenues and expenditures for November and the five months ended November 30, 1953, were received and ordered filed.

4. *Report of the Council:*

The chairman read the draft of a report of the Council to the House of Delegates. On motion duly made and seconded, this report was approved, subject to additional items which might develop at this meeting.

5. *Legal Department:*

Mr. Hassard reported on the status of a lawsuit involving the payment of fees by the Los Angeles General Hospital to several medical schools, on possible methods to evolve an amalgamation of doctors of medicine and osteopathic physicians and surgeons, on a new prepayment medical care plan of dubious authenticity and on the question of nurses starting and administering intravenous injections.

On motion duly made and seconded, it was voted to refer to the Committee on the Unlawful Practice of Medicine the last two named items.

6. *Illness of Councilor Dau:*

Report was made that Councilor Dau was ill and not expected back in active practice for some time. On motion duly made and seconded, it was voted that the chairman express to Mrs. Dau the sympathy of the Council in Doctor Dau's illness.

7. *State Department of Public Health:*

Dr. Wilton L. Halverson reported an anticipated 4,200 cases of poliomyelitis in California in 1953, compared with 4,047 in 1952. Of the current cases, 53 per cent are paralytic, compared with 63 per cent last year. He reported that 232,000 cubic centimeters of gamma globulin had been allocated to California and 70,000 cubic centimeters was still on hand. Contacts of some 2,700 polio cases, totaling about 9,000 persons, have received an average of 10½ cc. of gamma globulin by injection.

Dr. Halverson also discussed a new polio vaccine and reported on encephalitis in California.

He asked that the Association be represented on a

joint committee to study hospital training courses for fellows in public health. On motion duly made and seconded, it was voted to have the chairman make such appointments.

Dr. Halverson urged all members of the Council to take out memberships in the American Public Health Association.

8. *Blood Bank Commission:*

Dr. John R. Upton, chairman of the Blood Bank Commission, proposed that Drs. Andrew Henderson of Sacramento, Herbert Messenger of Napa, George Watson of Eureka, Gurth Carpenter or Elmer E. Wadsworth of Los Angeles, and Sidney Tepper or Vernon Richard of El Centro be added as members of the Blood Bank Commission. On motion duly made and seconded, these nominees were appointed.

Dr. Upton sought the cooperation of the Public Relations Department in presenting the positive side of blood banking to the public and was assured of cooperation.

He reported that the 11 banks in the commission's system had delivered 515,504 units of blood under the defense program at an average cost of $5.42 per unit. During 1952 these banks produced 120,655 units for civilian use.

On motion duly made and seconded, the report was approved.

9. *Committee on Veterans' Affairs:*

Dr. Berthel Henning, chairman of the Committee on Veterans' Affairs, reported on a meeting held with representatives of veterans' organizations relative to the care of non-service connected disabilities. On motion duly made and seconded, the report was approved and Dr. Henning was commended and requested to continue this activity.

10. *Committee on the Unlawful Practice of Medicine:*

Dr. Shipman reported on the production of tape and film strips for showing before county medical societies and a sample tape recording with illustrations was played. On motion duly made and seconded, it was voted to add to the committee two members of the Medical Services Commission, one of whom shall be the chairman of that commission.

11. *Medical Services Commission:*

Dr. Magoon presented a report of the Medical Services Commission, including the recommendation that a list of some ten items in the fee schedule of California Physicians' Service be adjusted upward. On motion duly made and seconded, this recommendation was approved.

12. *Committee on Industrial Accident Commission:*

Dr. Francis J. Cox presented a progress report on negotiations for a new industrial fee schedule and was thanked and commended for his work.

13. *Medical Transcripts for Hospital Staff Admissions:*

A letter from a medical school, decrying requests to furnish medical school transcripts of records for applicants for admission to hospital staffs, was discussed. It was agreed that legal counsel discuss this situation with the medical schools.

Recess:

At this point, 5:35 p.m., the Council was declared in recess until 9:00 a.m., Saturday, December 12, 1953.

Reconvention:

The Council reconvened at 9:00 a.m., Saturday, December 12, 1953, in the Green Room of the Fairmont Hotel, San Francisco.

14. *Medical Services Commission:*

On motion duly made and seconded, it was voted to approve the report of the Medical Services Commission to the House of Delegates, subject to deletion of two slides if such were practicable.

15. *California Medicine:*

On motion duly made and seconded, it was voted to accept, with regret and with thanks for his seven years of service, the resignation of Dr. Matthew N. Hosmer as a member and chairman of the Committee on Advertising.

On motion duly made and seconded, it was voted to appoint Dr. Robert Carson Martin a member of the Committee on Advertising and to appoint Dr. Robertson Ward as chairman.

On motion duly made and seconded, it was voted to appoint Dr. Edmund Keeney of San Diego as an allergist member of the Editorial Board, to succeed the late Frank G. Crandall, Jr.

16. *Audio-Digest:*

Dr. Lum reported that the Executive Committee had approved the proposed establishment of a nonprofit foundation to conduct the business of Audio-Digest and had approved an agreement whereby Mr. Jerry L. Pettis would receive 10 per cent of the net profits of this operation, up to a maximum of $25,000 annually for a period of five years, such period to be renewable up to a maximum of 17 years.

On motion duly made and seconded, this proposal was approved.

On motion duly made and seconded, and by a three-fourths vote, the Council approved a noninterest loan to Audio-Digest Foundation up to a maximum of $20,000.

17. *Committee on Medical Economics:*

On motion duly made and seconded, it was voted to refer to the Medical Services Commission a proposal of the Committee on Medical Economics for a fact-finding study on medical practice costs and fees.

Recess:

At this point, 9:40 a.m., the Council was declared in recess until 7:30 a.m., Sunday, December 13, 1953.

Reconvention:

The Council reconvened at 7:30 a.m., Sunday, December 13, 1953, in the Garden Room of the Fairmont Hotel, San Francisco.

18. *Committee on Rural Health:*

Dr. Henry Randel, chairman of the Committee on Rural Health, gave a progress report, discussed the cordial working relationship with the California Farm Bureau Federation and urged the participation of the Association in a state conference on children and youth to be called by Governor Knight in early 1954.

Dr. Randel was complimented on the work of his committee and was requested to make a similar report to the House of Delegates.

19. *Committee on Blue Shield-Blue Cross:*

Dr. Lewis A. Alesen gave a progress report on the work of the committee looking into cooperation between Blue Shield and Blue Cross programs. He was thanked for his report and requested to continue this program.

20. *Committee on Postgraduate Instruction:*

Dr. Edward C. Rosenow, Jr., chairman, and Dr. C. A. Broaddus, director, of the Committee on Postgraduate Instruction, made progress reports to the Council and were complimented on their work.

21. *Public Policy and Legislation:*

Discussion was held on the advisability of reestablishing a committee to investigate the feasibility of seeking legislation to govern the practice of clinical psychology. On motion made and seconded, it was voted to refer this matter to the Committee on Unlawful Practice of Medicine, with the Executive Committee authorized by more than a three-fourths vote, to expend up to $5,000 to look into the professional aspects of psychology in relation to psychiatry.

22. *State Department of Mental Hygiene:*

Dr. Walter Rapaport, recently appointed State Director of Mental Hygiene, was introduced and addressed the Council. He stressed his belief in the operation of state mental hospitals as individual units in a decentralized plan and expressed his desire to work in cooperation with the Association.

Adjournment:

There being no further business to come before it, the meeting was adjourned at 9:45 a.m.

SIDNEY J. SHIPMAN, M.D., *Chairman*
ALBERT C. DANIELS, M.D., *Secretary*

Executive Committee Minutes

Tentative Draft: Minutes of the 238th Meeting of the Executive Committee of the California Medical Association, San Francisco, December 11-13, 1953.

The meeting was called to order by Chairman Lum at 5:40 p.m., Friday, December 11, 1953, in the Cirque Room of the Fairmont Hotel, San Francisco.

Roll Call:

Present were President Green, President-Elect Morrison, Council Chairman Shipman, Speaker Charnock, Auditing Committee Chairman Lum and Secretary Daniels. Absent for cause, Editor Wilbur.

Present by invitation were Messrs. Hunton and Hassard and Drs. Edward Campion and C. A. Russell of Marin County.

1. *Medical Telephone Services:*

Drs. Campion and Russell discussed two orders pending before the California State Public Utilities Commission which, if adversely decided, might disrupt the emergency call service and physicians' call service on switchboards operated by or for county medical societies.

On motion duly made and seconded, it was voted to recommend to the Public Utilities Commission (1) approval of a plan presented by Pacific Telephone & Telegraph Co. for installation of a flat rate for secretarial switchboards and (2) approval of two-way secretarial lines on such switchboards, or at the least, a choice between two-way and one-way lines. The executive secretary was instructed to verify the facts as presented by direct inquiry to the Commission.

Recess:

At this point, 6:10 p.m., the Committee was declared in recess until 7:30 a.m., Saturday, December 12, 1953.

Reconvention:

The Committee reconvened at 7:30 a.m., Saturday, December 12, 1953, in the California Room of the Fairmont Hotel, San Francisco.

2. *Audio-Digest:*

Discussion was held on the formation of the Audio-Digest Foundation as a non-profit corporation for the production and distribution of tape

recordings and accompanying slides or film strips. On motion duly made and seconded, it was voted to approve such a corporation and to approve an agreement with Mr. Jerry L. Pettis whereby he would receive 10 per cent of the net profits of the corporation for a period of five years, such period to be renewable for five-year intervals for a maximum of 17 years; maximum annual compensation to Mr. Pettis under this agreement not to exceed $25,000.

Recess:

At this point, 9:00 a.m., the Committee was declared in recess until 9:30 a.m., Sunday, December 13, 1953.

Reconvention:

The Committee reconvened at 9:30 a.m., Sunday, December 13, 1953, in the Cirque Room of the Fairmont Hotel, San Francisco.

3. *Hospital Interns and Residents:*

Dean Smyth of the University of California Medical School reported on the status of interns and residents from foreign schools in this country. He noted that in an eastern state 487 of the interns were from foreign medical schools. He wished particularly to alert hospital staffs to their responsibility for these students and to alert the Board of Medical Examiners to this problem.

4. *Postgraduate Education:*

Dr. Smyth discussed the postgraduate education status in this state. He wished consultation with a suitable C.M.A. committee to study this situation. On motion duly made and seconded it was voted to refer this problem to the Committee on Postgraduate Education of the California Medical Association.

Adjournment:

There being no further business to come before the committee, the meeting was adjourned at 10:00 a.m.

DONALD D. LUM, M.D., *Chairman,*
ALBERT C. DANIELS, M.D., *Secretary*

Medical Dates Bulletin

THIS BULLETIN of the dates of postgraduate education assemblies and the meetings of various medical organizations in California is supplied by the Committee on Postgraduate Activities of the California Medical Association.

FEBRUARY

California Medical Association Institute for North Coast Counties, at Santa Rosa, February 11-12.

Midwinter Radiological Conference, Los Angeles, February 20-21.

Alumni Postgraduate Convention, College of Medical Evangelists, Los Angeles, February 23, 24, 25.

MARCH

Alumni Committee Children's Hospital, one-day seminar, San Francisco, March 20.

California Medical Association Institute for San Joaquin Valley Counties, Fresno, March 4-5.

California Medical Association Institute for West Coast Counties, Santa Barbara, March 18-19.

AFRIL

California Medical Association Institute for Sacramento Valley Counties, Sacramento, April 15-16.

Alumni Committee, Children's Hospital, one-day seminar, San Francisco, April 24.

California Medical Association Institute for Southern Counties, Palm Springs, April 22-23.

MAY

California Medical Association Convention, Los Angeles, May 9-13.

Clifford Sweet Lectureship, Children's Hospital of the East Bay, Oakland, May 26-28.

JUNE

American Medical Association, Annual Session, 1954, San Francisco, June 21-25.

American Geriatrics Society, San Francisco, June 17-19.

OCTOBER

California Society of Internal Medicine, Yosemite National Park, October 2.

California Academy of General Practice, Sixth Annual Scientific Assembly, Los Angeles, October 24, 25, 26, 27.

In Memoriam

Editor's note: Word of the death of Dr. George H. Kress came at press time for these pages. An essay on the service given to the California Medical Association by Dr. Kress in his many years in various official capacities, including the presidency of the Association and the editorship of this journal, is being prepared for publication in the March issue.

Abramson, Arthur J. Died in San Francisco, October 27, 1953, aged 46, of myocardial infarction and arteriosclerosis. Graduate of the University of California Medical School, Berkeley-San Francisco, 1937. Licensed in California in 1937. Doctor Abramson was a member of the San Francisco Medical Society.

✣

Buck, Leonard W. Died in Kentfield, November 23, 1953, aged 61, of coronary artery disease. Graduate of the University of California Medical School, Berkeley-San Francisco, 1928. Licensed in California in 1928. Doctor Buck was a retired member of the San Francisco Medical Society.

✣

Curphey, Wilfred C. Died in Boston, November 21, 1953, aged 48. Graduate of the University of Kansas School of Medicine, Lawrence-Kansas City, 1930. Licensed in California in 1941. Doctor Curphey was a member of the San Joaquin County Medical Society.

✣

Dormody, Hugh F. Died in San Francisco, December 20, 1953, aged 58. Graduate of the University of California Medical School, Berkeley-San Francisco, 1922. Licensed in California in 1922. Doctor Dormody was a member of the Monterey County Medical Society.

✣

Fareed, Mirza A. U. Died December 3, 1953, aged 71. Graduate of Edinburgh University, Chicago, Illinois, 1907. Licensed in California in 1916. Doctor Fareed was a member of the Los Angeles County Medical Association.

✣

Gaede, Alvin W. Died in Los Angeles, November 19, 1953, aged 55. Graduate of the University of Kansas School of Medicine, Lawrence-Kansas City, 1931. Licensed in California in 1934. Doctor Gaede was a member of the Kern County Medical Society.

✣

Hill, Robert B. Died in Beverly Hills, November 12, 1953, aged 67. Graduate of the University of Misouri School of Medicine, Columbia, 1909. Licensed in California in 1914. Doctor Hill was a retired member of the Los Angeles County Medical Association.

✣

Kress, George H. Died in Los Angeles, January 18, 1954, aged 79, of coronary artery disease. Graduate of the Medical College of Ohio, Cincinnati, 1899. Licensed in California in 1903. Doctor Kress was a member of the Los Angeles County Medical Association, and a life member of the California Medical Association.

Ledesma, Serapion B. Died November 19, 1953, aged 53. Graduate of the University of Nebraska College of Medicine, Omaha, 1932. Licensed in California in 1936. Doctor Ledesma was a member of the Monterey County Medical Society.

✣

McFadden, Robert N. Died in Los Angeles, November 26, 1953, aged 33, of metastatic fibrosarcoma. Graduate of Creighton University School of Medicine, Omaha, Nebraska, 1945. Licensed in California in 1945. Doctor McFadden was a member of the Kern County Medical Society.

✣

Mead, Franklin B. Died in Riverside, October 28, 1953, aged 45, of mitral valvulitis with insufficiency. Graduate of Northwestern University Medical School, Chicago, Illinois, 1938. Licensed in California in 1942. Doctor Mead was a member of the Riverside County Medical Association.

✣

Miller, Arthur W. Died in Riverside, November 28, 1953, aged 51, of coronary artery disease. Graduate of the University of Nebraska College of Medicine, Omaha, Nebraska, 1927. Licensed in California in 1928. Doctor Miller was a member of the Riverside County Medical Association.

✣

Rice, William F. Died in Fresno, December 14, 1953, aged 66, of coronary artery disease. Graduate of the University of Maryland School of Medicine and College of Physicians and Surgeons, Baltimore, 1914. Licensed in California in 1942. Doctor Rice was a member of the Fresno County Medical Society, and an associate member of the California Medical Association.

✣

Spiro, Harry. Died in San Francisco, November 18, 1953, aged 78. Graduate of Cooper Medical College, San Francisco, 1904. Licensed in California in 1904. Doctor Spiro was a retired member of the San Francisco Medical Society.

✣

Von Zelinski, Walter F. Died in Santa Barbara, December 29, 1953, aged 71, of coronary artery disease. Graduate of Bennett Medical College, Chicago, Illinois, 1908. Licensed in California in 1941. Doctor Von Zelinski was a member of the Santa Barbara County Medical Society.

✣

Weaver, Don D. Died in Oakland, November 9, 1953, aged 65, of myocardial infarction. Graduate of the University of Michigan Medical School, Ann Arbor, 1911. Licensed in California in 1911. Doctor Weaver was a member of the Alameda-Contra Costa Medical Association.

NEWS & NOTES

NATIONAL • STATE • COUNTY

ALAMEDA

Dr. Edward Kupka has been granted a two-year leave of absence from his position as Chief, Bureau of Tuberculosis Control, California State Department of Public Health, in order to accept an assignment under the U.S. foreign aid program as public health advisor to the goverment of Vietnam. His address during 1954 and 1955 will be in care of the American Consulate, Hanoi, Vietnam, French Indochina.

LOS ANGELES

Announcement was made recently by the **Metropolitan Dermatological Society of Los Angeles** that the officers elected for 1954 are: President, Dr. Fred P. Feldman, Beverly Hills; vice-president, Dr. Irving A. Lewe, Montebello; secretary-treasurer, Dr. Harold Price, North Hollywood.

* * *

Each day's program of the Alumni **Postgraduate Convention** of the College of Medical Evangelists to be held at the Los Angeles Biltmore Hotel, February 23-25, will feature a panel discussion preceded by lectures preparing the way for the panel topic. The topic for the panel the first day is "A Second Look at the Miracle Drugs"; for the second day, "Problems in Cancer Management"; and for the third, "Postoperative Medical Complications." The program is designed for physicians in general practice and meetings are open to all physicians.

SAN JOAQUIN

Dr. James Baker of Stockton has been elected president of the San Joaquin County Medical Society for 1954. He succeeds Dr. Emil Gough.

SONOMA

Dr. William J. Rudee of Santa Rosa was installed as president of the Sonoma County Medical Society for the coming year at the final meeting of the Society in 1953, and Dr. Robert S. Westphal, Sonoma County health officer, was elected president-elect. Dr. Frank E. Lones of Santa Rosa was reelected secretary.

GENERAL

The Western Industrial Medical Association will hold its thirteenth annual meeting May 8, 1954, at the Biltmore Hotel, Los Angeles, the day preceding the opening of the Annual Session of the California Medical Association which is to be held there May 9-13.

The sixth congress of the **Pan-Pacific Surgical Association** will be held in Honolulu, October 7-8, 1954. Besides a scientific program with over 100 leading surgeons taking part, an extensive social program is being developed for physicians and members of their families who attend.

Official announcement of the meeting said that since the association's office has been appointed as travel agent for those attending the Congress, it is important that all hotel and travel reservations be made through the Honolulu headquarters of the Pan-Pacific Surgical Association. Making arrangements as soon as possible was urged in order to assure adequate accommodations.

Further information may be obtained by writing to F. J. Pinkerton, M.D., Director General, Pan-Pacific Surgical Association, Suite 7, Young Building, Honolulu, Hawaii.

* * *

The sixth annual convention of the **International Academy of Proctology** will be held at the Palmer House, Chicago, April 8, 9, 10 and 11, 1954. Programs may be obtained from the Executive Office of the International Academy of Proctology, 43-55 Kissena Boulevard, Flushing, New York.

* * *

The fifth annual meeting of the International Group of **Doctors in Alcoholics Anonymous** will be held in Akron, Ohio, May 14, 15 and 16, 1954.

Physicians may get further information and arrange for reservations by writing to: Doctors, Mayflower Hotel, Akron, Ohio.

* * *

The Foundation of the **American Society of Plastic and Reconstructive Surgery** has announced its fifth annual essay contest, with two scholarships as prizes for winners in the junior division. The contest in junior classification is restricted to residents in training and to plastic surgeons who have been in practice no longer than five years. The prizes are three-month plastic surgery scholarships with full maintenance in selected leading services in the United States and abroad. The subject matter of the essay must be the result of some original research (either clinical or experimental) in the field of plastic and reconstructive surgery.

A silver plaque or a certificate of honorable mention is also offered for a winning essay in senior classification to contestants active in practice of plastic and reconstructive surgery for more than five years.

Further information may be obtained from the Award Committee, care of Jacques W. Maliniac, M.D., chairman, 30 Central Park South, New York, N. Y.

* * *

The thirteenth annual essay contest of the **Mississippi Valley Medical Society** will be held in 1954. The Society will offer a cash prize of $100, a gold medal, and a certificate of award for the best unpublished essay on any subject of general medical interest (including medical economics and education) and practical value to the general practitioner of medicine. Certificates of merit may also be granted to the physicians whose essays are rated second or third best.

Contestants must be members of the American Medical Association who are residents or citizens of the United States. The winner will be invited to present his contribution before the 19th annual meeting of the Mississippi Valley Medical Society to be held at Chicago, September 23, 24, 1954. Further details may be obtained from Harold Swanberg, M.D., Mississippi Valley Medical Society, 209-224 W.C.U. Building, Quincy, Illinois.

POSTGRADUATE EDUCATION NOTICES

UNIVERSITY OF CALIFORNIA AT LOS ANGELES

Recent Advances in General Surgery—Feb. 10-April 28.

Pathological Physiology—February 15-May 3.

Hematology for Laboratory Technicians—Long Beach, February 15-May 24.

Dermatology in General Practice—February 17-March 24.

Clinical Chemistry for Laboratory Technicians—February 18-May 27.

Basic Neurology—Middle of March. Exact dates to be announced.

Venereal Disease Public Health Conference—April 5-9.

Three-Day Symposia: Office Otolaryngology—April 29; Office Urology—April 30; Office Proctology—May 1.

Anesthesia—May 13-14.

Techniques of Hypnosis—May 18-19.

Electrocardiography—June 2-18.

Laboratory Technicians Symposium—June 19-20.

Contact: Mrs. Margaret H. Griffith, Assistant Head of Postgraduate Instruction, Medical Extension, University of California, Los Angeles 24, California.

UNIVERSITY OF CALIFORNIA, SAN FRANCISCO

Symposium on Heart and Lung

Date: February 19, 20, 21 (week-end), University of California Extension Building, 540 Powell Street. This short course will give an intensive review of the most recent advances in the diagnosis and treatment of diseases of the heart and lung; with demonstrations and discussions.

Course for General Practitioners

Date: March 8 through 12, all day, Mount Zion Hospital, San Francisco. This program will be presented by the Visiting Staff of Mount Zion Hospital in collaboration with University of California Medical Extension. It will include many subjects of interest to the general physician, with demonstrations of patients and discussions of illustrative cases.

Symposium on Emergencies: Medical, Surgical, Obstetrical

Date: April 16, 17, 18 (week-end), University of California Extension Building, 540 Powell Street, San Francisco.

Course in Internal Medicine, American College of Physicians

Date: June 14 through 18, all day, University of California Extension Building, 540 Powell Street, San Francisco.

Conference on General Surgery

Date: September 13 through 17, all day, at Medical Center. This conference will be offered for the purpose of stressing the newer concepts, methods of diagnosis, treatment and techniques in surgery. Throughout the session emphasis will be placed on the diagnosis and treatment of malignant lesions. Instruction will consist of didactic periods, panel discussions, and actual operative demonstrations which will be televised from the operating room to the lecture hall. This program will be designed for general practitioners who are doing surgery. The class will be limited.

Conference on Fractures and Diseases of the Bone

Date: September 20 through 23, all day, San Francisco County Hospital. The program will cover the newer concepts, methods of diagnosis, treatment and techniques. There will be didactic lectures, panel discussions, and actual demonstrations of illustrative cases. The class will be limited.

Medicine for General Practitioners

Date: September 21 to December 7, Tuesday evenings, East Oakland Hospital, Oakland. This is a continuation course which is offered every year, with complete change of program and speakers. Class limited.

Evening Lectures in Medicine, Part 1 and Part 2

Date: September 16 through December 9, Thursday evenings, Mills Memorial Hospital, San Mateo. This is also a continuation course which will be of interest to both internists (Part 1) and to physicians in general practice (Part 2).

Symposium on Endocrine Diseases and Geriatrics

Date: October 22, 23, 24 (week-end), University of California Extension Building, 540 Powell Street, San Francisco. A review of recent developments in both fields, with suggestions for the management of patients past the age of fifty.

Microscopy (Part 1)

Date: January 14 through March 18, Thursday evenings, Medical Center.

Photomicrography (Part 2)

Date: April 1 through June 3, Thursday evenings, Medical Center. Part 2, Photomicrography, in monochrome and in color, cannot be taken without Part 1, but Part 1, Microscopy, which includes the critical use of the microscope, may be taken alone. These courses are open to any persons who are interested in the study of the topics listed above. Class limited.

Contact: Stacy R. Mettier, M.D., Head of Postgraduate Instruction, Medical Extension, University of California Medical Center, San Francisco 22, California.

COLLEGE OF MEDICAL EVANGELISTS

Varicose Veins (6 periods)

Date: March 2 through April 13, 1954. Tuesdays: 7:00-9:00 p.m. Tuition: $25.00. Carl H. Talmage, M.D., and Associates.

Histology and Histopathology of the Eye (15 periods)

Date: March 3 through June 9, 1954. Wednesdays: 7:30-9:30 p.m. Tuition: $60.00. I. G. Sommers, M.D.

Gynecology (10 periods)

Date: March 24 through May 26, 1954. Wednesdays: 8:00-9:00 a.m. Tuition: $30.00. Dell D. Haughey, M.D., and Associates.

Operotive Surgery (12 periods)

Date: March 24 through June 9, 1954. Hunterian Laboratory and L.A.C.G.H. Wednesdays: 9:30 a.m.-12.00. Tuition: $200.00. Harry A. Davis, M.D.

Minor Orthopedic Surgery (8 periods)

Date: April 1 through May 20, 1954. Thursdays: 8:00-9:30 p.m. Tuition: $30.00. Alonzo J. Neufeld, M.D., and Associates.

Surgicol Diseoses of Children (4 periods)

Date: April 6 through April 27, 1954. Tuesdays: 11:00 a.m.-12 m. Tuition: $20.00. J. Norton Nichols, M.D.

Endocrinology (8 periods)

Date: April 6 through May 25, 1954. Tuesdays: 8:00-9:30 p.m., Los Angeles County Hospital. Tuition: $30.00. Julius Bauer, M.D.

Thorocic Surgery (8 periods)

Date: April 14 through June 2, 1954. Wednesdays: 8:00-9:30 p.m., Los Angeles County Hospital. Tuition: $30.00. Lyman A. Brewer, M.D.

Diseases and Injuries of Bones and Joints (4 weeks) Full time.

Date: July 5 through 30, 1954. Dr. Taylor's office and various hospitals. Tuition: $100.00. G. Mosser Taylor, M.D., Alonzo J. Neufeld, M.D., and Associates. Unless otherwise stated or arranged, courses will be held in Osler House, corner State and Michigan Avenues.

Contact: Chairman, Section on Graduate and Postgraduate Medical Education, College of Medical Evangelists, 312 North Boyle Avenue, Los Angeles 33, California.

STANFORD UNIVERSITY SCHOOL OF MEDICINE

Ophtholmology Conference

Date: March 22 through 26, 1954. Registration will be open to physicians who limit their practice to the treatment of diseases of the eye; or eye, ear, nose and throat. Registration limited to thirty physicians. Instructors will be A. Edward Maumenee, M.D., Dohrmann K. Pischel, M.D., Jerome W. Bettman, M.D., Max Fine, M.D., Earle H. McBain, M.D., and Arthur J. Jampolsky, M.D.

Clinical Ophtholmologicol Conference

Date: March 20, 1954, Saturday, 9:30-3:00, Stanford Lane Hospital, 2398 Sacramento Street, San Francisco, California. *No fee.*

Contact: Lowell Rantz, M.D., 2398 Sacramento Street, San Francisco, California.

UNIVERSITY OF SOUTHERN CALIFORNIA

The Essential Physics of Theropeutic Rodiology ond the Clinicol Applications of Rodioactive Isotopes by Robert E. Pugh, Jr., physicist in radiology; Paul C. Aebersold, Ph.D., director, Isotopes Division, United States Atomic Energy Commission, Oak Ridge, Tennessee; and Henry L. Jaffe, M.D., associate clinical professor of therapeutic radiology. This course is to be given in Los Angeles, March 8 through May 24, Monday evenings from 8:00 to 10:00 p.m., at the Los Angeles County Hospital and the Cedars of Lebanon Hospital. This course will provide excellent background information for those who wish also to obtain the actual clinical training necessary for A.E.C. certification.

Contact: Robert S. Cleland, M.D., assistant director. Medical Extension Education, University of Southern California School of Medicine, 2025 Zonal Avenue, Los Angeles 33, California.

C.M.A. REGIONAL MEDICAL AND SURGICAL INSTITUTES

San Jooquin Volley Counties, Fresno, March 4-5, 1954.

West Coast Counties, Santa Barbara, March 18-19, 1954.

Socromento Volley Counties, Sacramento, April 15-16, 1954. Please note change of date for Sacramento Valley Counties Institute, from April 1-2 to April 15-16, 1954.

Southern Counties, Palm Springs, April 22-23, 1954.

Contact: C. A. Broaddus, M.D., Director, Postgraduate Activities, California Medical Association, 1036 N. Center Street, Stockton, California.

SEMINARS OF THE ALUMNI COMMITTEE OF THE CHILDREN'S HOSPITAL, SAN FRANCISCO

March 30, 1954—Acute and Chronic Infections and the Choice of Antibiotics in Treatment.

April 24, 1954—Childhood Ecology, with a discussion of physical, mental and emotional growth and development of the young child; the effects of deprivation of maternal care, and the impact of environment on the child.

A fee of $15.00 will be charged for attendance at all the seminars and those who wish to have further details or be on the mailing list for such details may write to: H. E. Thelander, M.D., Children's Hospital, 3700 California Street, San Francisco.

ORTHOPAEDIC HOSPITAL AND RANCHO LOS AMIGOS RESPIRATORY CENTER, LOS ANGELES

Care of the Poliomyelitis Potient—April 26-30. The course is designed to cover all phases of patient care and rehabilitation, including use of the respirator.

Contact: Polio Teaching Program, Orthopaedic Hospital, 2400 South Flower Street, Los Angeles 7.

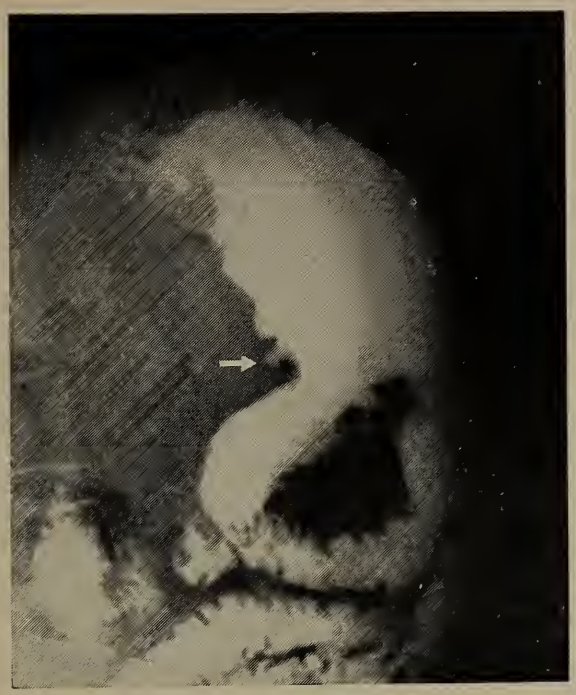

Fig. 1 "Roentgen examination . . . revealed the ulcer to be very much in evidence."

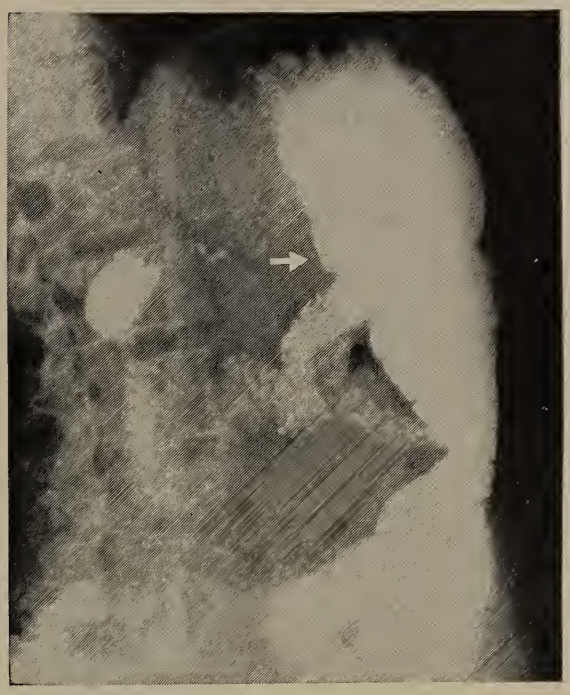

Fig. 2 In ten weeks "the ulcer niche was no longer in evidence roentgenologically or gastroscopically."

Clinical Evaluation of Pro-Banthine®

The case report described below offers significant evidence of the high potency in low dosage of the new, well-tolerated anticholinergic agent, Pro-Banthine.

"M. D., female, aged 48, had a posterior gastrojejunostomy 14 years ago for duodenal ulcer. The patient was fairly well until nine months ago when severe, intractable pains occurred. She was hospitalized and a subtotal gastrectomy was done.

"She remained well for only a few months and was referred to us because of recurrence of very severe pain and marked weight loss. Roentgen study revealed a fairly large ulcer niche on the gastric side of the anastomosis.

"The patient had been on various types of antacids and sedatives without relief from pain. She was given 60 mg. of Pro-Banthine q.i.d. and within 72 hours was able to sleep through the night for the first time in weeks.

"At the end of two weeks of such treatment the patient had absolutely no pain and felt that she had been 'cured.' Roentgen examination at this time revealed the ulcer to be very much in evidence (*Fig. 1*). Much persuasion was necessary to make the patient realize the importance of maintaining her diet and therapy.

"Ten weeks of controlled regulation was necessary before we were satisfied that the ulcer niche was no longer in evidence roentgenologically or gastroscopically (*Fig. 2*).

"She has been maintained on 30 mg. [q. i. d.] of Pro-Banthine for almost five months with no recurrence of symptoms."[1]

Pro-Banthine (*brand of propantheline bromide*), the new, improved anticholinergic agent, is more potent and, consequently, a smaller dosage is required and side effects are greatly reduced or absent. It is available in 15 mg. tablets as well as in tablets (15 mg.) with Phenobarbital (15 mg.) and in 30 mg. ampuls.

Peptic ulcer, gastritis, intestinal hypermotility, pancreatitis, genitourinary spasm and hyperhidrosis respond effectively to Pro-Banthine, orally, combined with dietary regulation and mental relaxation. G. D. Searle & Co. *Research in the Service of Medicine.*

---

1. Schwartz, I. R.: Personal communication, Feb. 9, 1953.

Addition of Nutrients to Food Beneficial to Nation's Health

The addition of specific nutrients to certain staple foods has been beneficial to the nation's health and has encouraged sound nutritional practices, the American Medical Association's Council on Foods and Nutrition reported.

However, it stressed the desirability of the individual meeting his nutritional needs by the use of natural foods as far as practicable. People should learn, it was added, the proper choice and preparation of foods, and better ways to produce, process, store and distribute foods.

The council endorsed the enrichment of flour, bread, degerminated corn meal and corn grits; the nutritive improvement of whole grain corn meal and of white rice; the retention or restoration of thiamine, niacin and iron in processed food cereals, and the addition of vitamin D to milk, of vitamin A to table fats and of iodine to table salt.

"The principle of the addition of specific nutrients to certain staple foods is endorsed for the purpose of maintaining good nutrition as well as for correcting deficiencies in the diets of the general population or of significant segments of the population," it was stated by Dr. James R. Wilson, Chicago, secretary of the council.

"In order to avoid undue artificiality of food supply, foods chosen as vehicles for the distribution of additional nutrients should be, whenever practicable, those foods which have suffered loss in refining or other processing, and the nutrients added to such foods should preferably be the kinds and quantities native to the class of foods involved."

Don't Get Your Vitamins Out of a Cosmetic Jar

(Continued from Page 54)

containing cosmetics are being promoted for use by the general public.

"It is fair to ask whether cosmetics are a rational place to use vitamins. Serious vitamin deficiency is rare in this country. So it cannot be assumed that such deficiency is a common cause of the universal skin-aging signs — dryness, lines and wrinkles. There's no good evidence that, in the rare case where a deficiency does exist, vitamins are more effective applied to the skin than taken orally.

"Large oral doses of both vitamins A and D are used successfully by physicians for some pathologic skin conditions. This situation is quite different from the unrestricted application of vitamins on apparently healthy skin for beautification."

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40 MINUTES FROM LOS ANGELES

Antimalarial Drug Aids in Treatment Of Skin Disorder

Quinacrine hydrochloride (atabrine), a drug developed as a prophylactic measure against malaria, is of value in the treatment of chronic discoid lupus erythematosus, a serious skin disorder, it was reported in two publications of the American Medical Association. The disease is marked by disc-like patches with raised, reddish edges and depressed centers, and covered with scales or crusts which fall off, leaving dull-white scars.

In a recent issue of the *Journal of the American Medical Association*, four Ohio doctors presented the results of a study of 32 patients treated with the drug. Twelve showed complete clearing of the affliction, 15 showed at least 50 per cent improvement, and five were considered failures.

"From this study, it would appear that the effects of quinacrine are rapid and dramatic in those cases of chronic discoid lupus erythematosus that will prove amenable to this therapy," they stated. "In 10 of the 12 subjects in whom complete clearing resulted, the response was noted within three months.

"This is significant, for it is a generally accepted fact that the incidence of toxic reactions attributable to quinacrine increases with the prolongation of its administration beyond a period of three or four months. Furthermore, it is impossible to definitely state that improvement occurred in any instance in which therapy continued beyond five or six months.

"The response to therapy apparently bears no relationship to age, sex, duration, severity or previous treatment. Thus far, tendency to recurrence or relapse has not been observed in any of these patients in whom the disease has cleared completely or who have initially shown marked improvement."

In a recent issue of *Archives of Dermatology and Syphilology*, three Rochester, Minn., physicians described the use of the drug on 52 such patients. Seventeen of them had complete arrest of the disease, 15 were more than 75 per cent improved, nine were 25 to 75 per cent improved, and 11 were 0 to 25 per cent improved.

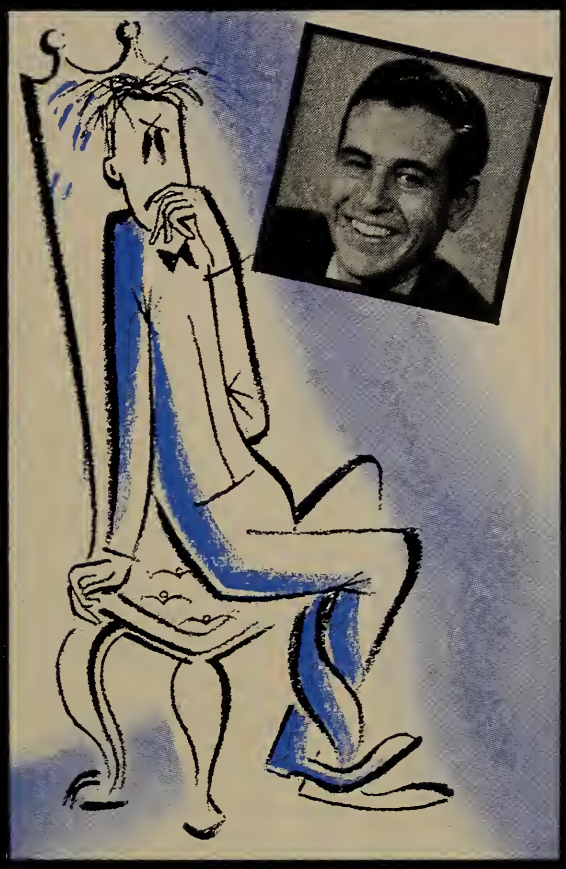
"It appears definite from our experience that administration of quinacrine is of great value in the treatment of chronic discoid types of lupus erythematosus, and, at the same time, the incidence of untoward reactions is low.

"In the patients who derive good results from quinacrine, the significant improvement appears within the first four to six weeks of therapy. In other words, if some beneficial results are not apparent in the first month of treatment, it is doubtful that any marked degree of benefit will be obtained."

Side-reactions to the drug, seen by the Ohio doctors in two patients, consisted of skin eruptions. The Minnesota doctors noted a discoloration of the skin in many of their patients and occasional gastro-

(Continued on Page 94)

IMPROVED RELAXATION THERAPY



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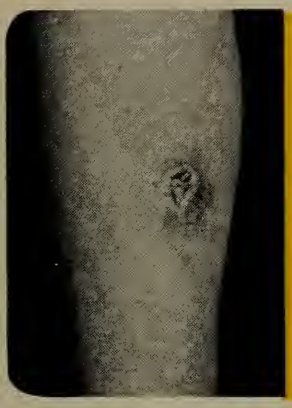
varicose ulcer

FEBRUARY 11
2.1 x 1.3 cm. varicose ulcer, unresponsive to previous therapy.



FEBRUARY 19
Epithelial ingrowth from margins after 8 days' therapy with MY-B-DEN, Sustained-Action, 20 mg.

MARCH 19
Ulcer completely healed. Patient received 22 injections of MY-B-DEN, Sustained-Action, 20 mg. (1 cc. I. M.)

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The complications of chronic venous insufficiency respond dramatically to MY-B-DEN. Itching, edema, pain, and burning are quickly relieved and "the ulcer proceeds to heal."[1] The benefits of supportive measures are enhanced, and when surgery is indicated MY-B-DEN is a "valuable adjunct."[2]

Administration: 1 cc. injected intramuscularly 3 times weekly. For severe cases dosage treatment may require 4 to 6 weeks.

Supplied: MY-B-DEN Sustained-Action in gelatin solution: 10 cc. vials in two strengths, 20 mg. per cc. and 100 mg. per cc. adenosine-5-monophosphate as the sodium salt. (Also available in Aqueous Solution and Sublingual Tablets.)

1. Rottino, A.; Boller, R., and Pratt, G. H.: Angiology *1*:194, 1950.

2. Boller, R.; Rottino, A., and Pratt, G. H.: Angiology *3*:260, 1952.

"Pioneers in Adenylic Acid Therapy"

Bischoff

ERNST BISCHOFF COMPANY, INC.
IVORYTON, CONNECTICUT

Report Discovery of New Factor in Blood

An unusual reaction to a blood transfusion that led to the discovery of a new, common factor in the blood, designated as factor U, was described in a recent issue of the *Journal of the American Medical Association*. Lack of the factor, noted in Negroes, causes the blood to clump, complicating blood transfusions.

The reaction occurred in a 35-year-old Negro woman who was admitted to a New York hospital suffering from a bleeding peptic ulcer and anemia. A blood transfusion was attempted upon admittance, but discontinued when the patient suffered chills and fever. A week later a second transfusion was attempted; despite all precautionary measures, the patient went into shock and died.

Tests of the patient's blood and that of the donors indicated that the patient's serum contained an abnormal antibody that caused the blood cells of the donors to clump together upon transfusion, the article stated. Further tests with the patient's serum on a small series of other blood specimens showed them all to be incompatible with the patient's. This indicated the factor in question had a high frequency in the population and apparently was not related to any known factor, it was added. The patient lacked this factor, which was named factor U.

Additional tests in order to find persons lacking in the factor were made on 690 Caucasoids and 425 Negroids. All of the Caucasoids were found to have factor U in their blood, while four of the Negroids tested were found to be lacking in it.

The report was made by Dr. A. S. Wiener, Dr. L. J. Unger and E. B. Gordon, Brooklyn.

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Rx Reading

—C.M.A.'s news letter?

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EDIOL micronized emulsion of coconut oil (50%) and sucrose (12½%), supplied in bottles of 16 fluid ounces.

Schenley Laboratories, Inc.
New York 1, New York

Urges Standardization, Increased Bed Capacity of Nursing Homes

(Continued from Front Advertising Section, Page 41)

would recommend that a regular staff be appointed. If the home is attached to a general hospital, the staff can be provided by the general hospital. If not, the county or city medical society will aid in the selection. In smaller hospitals, the same procedure will apply, or the patient may have his own physician. Wherever possible, the free choice of physicians should apply."

Dr. Murdock said he believed that all patients in nursing homes should have preadmission chest x-rays, that their mode of living should not be changed so that ultrascientific procedure supplants comfort, and that a physical examination be given at least twice yearly."

"We must always bear in mind that the nursing home is and should be operated for the kindly, gentle care of these old persons who find themselves in the late period of their lives without any place to go, who are entitled to good care, and who do not need overly scientific study," Dr. Murdock stressed.

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Protein not only feeds the machine of the developing child, but is itself the machinery. An abundance of protein for body growth as well as blood, enzyme and hormone synthesis is a primary requirement. Protein must be consumed daily to maintain the structural mass of tissue. Knox Gelatine is easy to digest and provides a useful protein supplement for both cereals and vegetables in the child's diet.

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ALL PROTEIN . . . . . NO SUGAR
AVAILABLE AT GROCERY STORES IN 4-ENVELOPE FAMILY SIZE AND 32-ENVELOPE ECONOMY SIZE PACKAGES.

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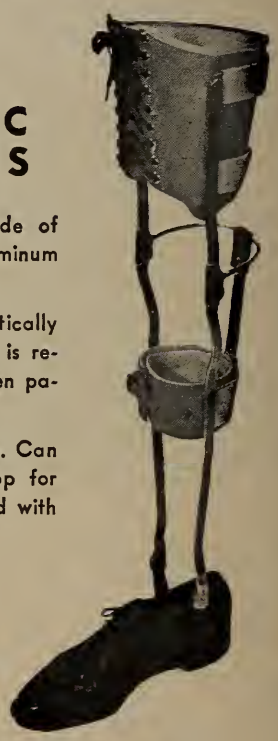

This long leg brace is made of stainless steel and strong aluminum alloy.

The knee joints lock automatically when leg is extended. Lock is released by edge of chair when patient sits.

Ankle joint is at action level. Can have spring lift or 90° stop for drop foot. Stirrup is covered with leather to match shoe.

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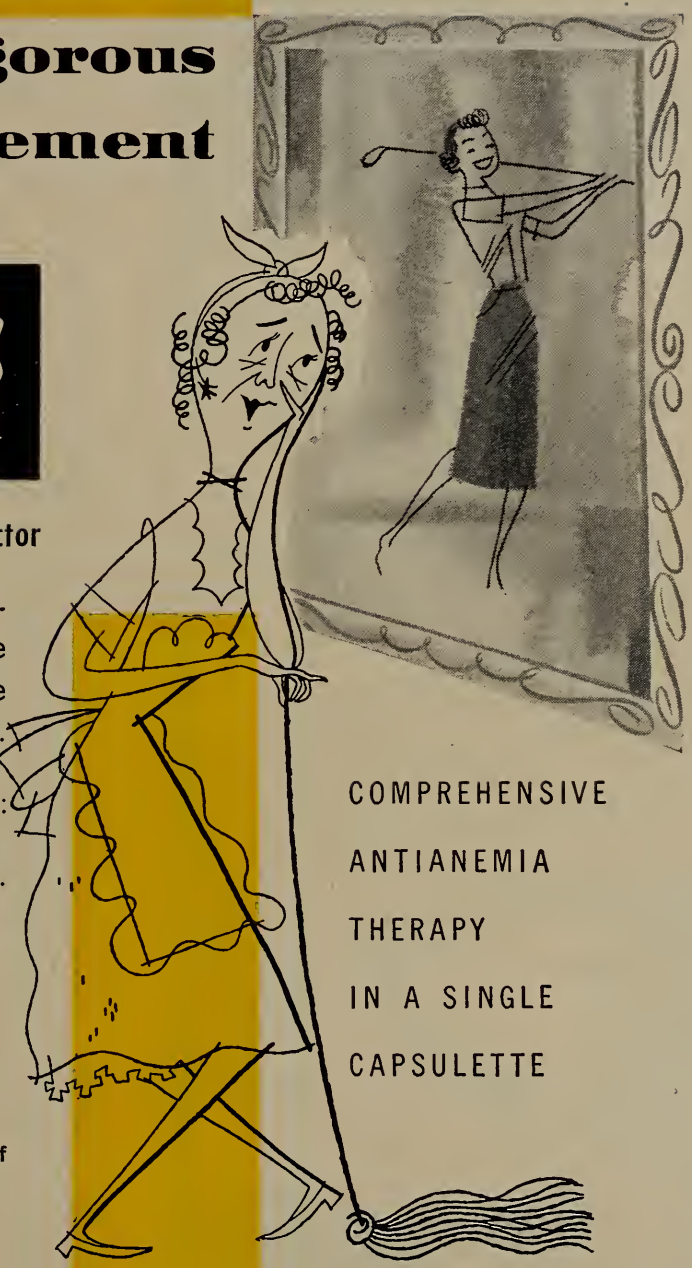
Each ARMATINIC ACTIVATED Capsulette contains:

Ferrous Sulfate, Exsiccated	200 mg.
Vitamin B_{12} Crystalline	10 mcg.
Folic Acid	1 mg.
Vitamin C	50 mg.
Liver Fraction II (N.F.) with Desiccated Duodenum (contains Intrinsic Factor)	350 mg.

Supplied in bottles of 100 and 1000.

Also available: Armatinic Liquid, bottles of 8 oz. and 16 oz.



COMPREHENSIVE ANTIANEMIA THERAPY IN A SINGLE CAPSULETTE

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Four Groups at Work Within Hoover Commission Medical Task Force

To facilitate the gathering of information from government agencies and other sources, the Hoover Commission Medical Task Force has separated itself into four divisions. The findings will be "considered fully by the whole Task Force," according to the commission, before any conclusions are reached or any recommendations made. The makeup of the four teams:

Medical Services of the Armed Forces: Drs. E. D. Churchill (chairman), Michael DeBakey (co-chairman), Walter Martin, president-elect of the A.M.A., and Dwight L. Wilbur. Medical Services of the Veterans Administration: Drs. Basil C. MacLean (chairman), Francis J. Braceland, Evarts A. Graham, and Otto W. Brandhorst. Medical Services of the U. S. Public Health Service and Other Federal Services: Drs. Theodore Klumpp (chairman), Hugh Leavell (vice-chairman), and Milton C. Winternitz. Overall Planning for Medical Services in Time of War: Drs. Paul Hawley (chairman), Alan Gregg (co-chairman), and James Roscoe Miller.

Care and Planning Can Salvage Retirement Productivity Waste

With greater care and planning, much valuable productivity that now is being wasted by compulsory retirement can be salvaged, it was stated editorially in a recent issue of the *Journal of the American Medical Association*. Older workers who are capable of and desire employment should be permitted to work, it added.

As firms take great pains to choose whom they will hire, there is no reason why they should not concern themselves equally with the problems of whom they will retire, the editorial said. Retirement policies, in addition to setting the conditions of retirement, should state how older workers may be profitably kept on the job and how their status is to be determined.

The best way to determine who should be retired, according to the editorial, is for a firm to create a panel to judge each case on its merits and determine whether the worker should continue in his present status, go on a modified schedule, transfer to a less demanding job, or be retired. The panel, which should include one or more high level executives and an industrial physician, should seek advice, when necessary, from the employee's immediate supervisor, the company's personnel director, or the local union. Restudying of methods of work and a restudying of training methods also will aid in the solution of the problem, it was added.

"In our aging population the gap between retirement and death is widening," the editorial pointed out. "In 1900 it averaged about two and a quarter years. This had doubled by 1950 and is still increas-

(Continued on Page 98)

THE ADVANTAGES OF COMBINING RAUWOLFIA SERPENTINA and VERATRUM VIRIDE

Many cardiologists today assert that in hypertension, combination therapy is more effective than any one drug alone. The combination of Rauwolfia serpentina and Veratrum viride, as provided by Rauvera, is considered one of the more desirable mixtures. Only mildly hypotensive in its action, Rauwolfia serpentina leads to striking subjective improvement, lowers dosage requirements of Veratrum viride, and reduces the incidence of reactions to the latter. The combination exerts a remarkable additive, if not synergistic, influence.

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It Isn't Second Childhood—It's the Effects of Aging Arteries

(Continued from Page 66)

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"The problems of the aging brain deserve to be understood, and the burdens they impose deserve to be lightened."

Antimalarial Drug Aids in Treatment Of Skin Disorder

(Continued from Page 73)

intestinal upset, anxiety and nervousness.

The report in the *Journal* was made by Dr. Harold N. Cole Jr., Shaker Heights, Ohio, and Drs. Paul V. Chivington Jr,, Harold N. Cole, and James R. Driver, Cleveland. All are associated with the department of dermatology and syphilology, University Hospitals, and the school of medicine, Western Reserve University. The Minnesota physicians, all of whom are associated with the section on dermatology, Mayo Clinic, are Drs. Robert R. Kierland, Louis A. Brunsting, and Paul A. O'Leary.

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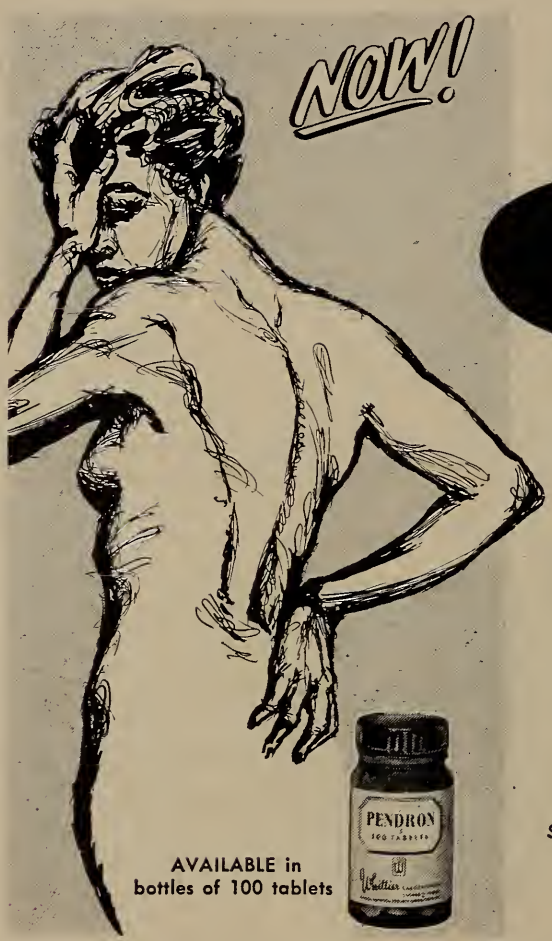

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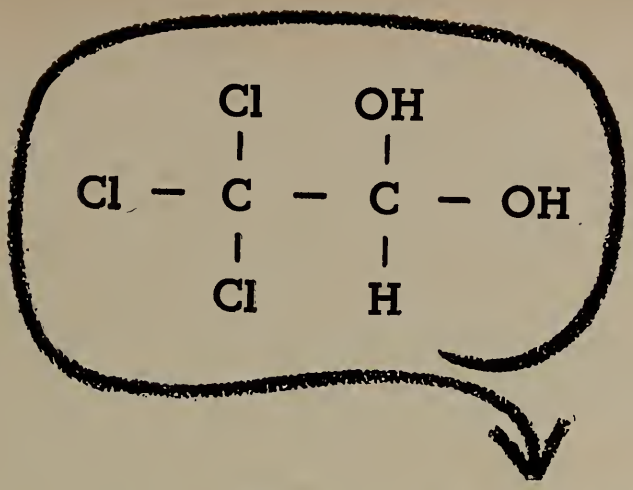

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Vomiting in Children May Be Sign of Emotional Disorder

Vomiting may be the first and only indication of an emotional disorder in an infant or child, in the opinion of Dr. Paul C. Laybourne, Jr., Kansas City, Kansas.

"The infant has only a few ways in which to express undue emotional tension," Dr. Laybourne wrote in a recent issue of the *American Journal of Diseases of Children*, published by the American Medical Association. "He can refuse food, cry excessively and vomit."

Much psychological vomiting in infants and children is the result of a disturbing atmosphere at home, Dr. Laybourne pointed out, stating:

"It is obvious in such cases that direct treatment of the baby or child is unnecessary. Psychological vomiting in infants is easily diagnosed by the simple expedient of hospitalizing them. Almost universally the vomiting stops with the removal of the baby from the disturbing environment of the home. This observation helps in making a differential diagnosis between organic and psychologic disease."

If no definite organic basis for the vomiting of a baby can be established, the emotional attitude of his mother should be thoroughly investigated, according to Dr. Laybourne, as a severe emotional disturbance in the mother can be transferred to the baby.

"Just exactly how the psychic tension is transmitted to the child is poorly understood," he said. "If the mother can communicate positive and happy feelings to the baby by the tone of her voice and expression on her face, it would seem reasonable to assume that disturbances in the mother, which produce tenseness and anxiety in her voice, as well as in her behavior, can also be communicated to the child."

Treatment of babies whose emotional disorder is a reflection of that of their parents requires that the basic emotional difficulty of the parents be resolved, Dr. Laybourne stated, adding:

"Any psychotherapy, therefore, is directed toward the parents and not the child. If a successful resolution of the parents' problem is impossible, the child should be placed in a warm friendly environment, so that it need no longer react to the emotional stresses of those who care for him. Children up to the age of about five years who have emotional vomiting will respond satisfactorily to simple environmental manipulation or psychiatric treatment of the parent."

As the child gets into the school age or older, vomiting becomes more difficult to treat, and combined therapy of parent and child often is necessary, he pointed out.

"Here the symptoms of vomiting may appear less directly related to obvious emotional disturbances in the parent," he added. "The vomiting often makes its appearance following a traumatic experience to

(Continued on Page 98)

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Care and Planning Can Salvage Retirement Productivity Waste

(Continued from Page 86)

ing. The reason for this is a combination of two factors: the saving of more lives between birth and age 35, and the policy in many firms of compulsory retirement at an arbitrary age, usually 65.

"There is a growing recognition that a fixed retirement age is unprofitable for the employer, frustrating for the employed, and eventually disastrous to the national economy. Although some workers become inefficient at 65 or younger, a fixed retirement age works a hardship on the productive majority along with the unproductive minority."

Although it is true that aging workers suffer a gradual diminution in strength and in the speed of their muscular movements, these handicaps are more than compensated for by an increase in skill or accuracy and in reliability and conscientiousness, according to the editorial, which added:

"Many workers reach the age of 65 without showing any signs of slowing up, and they should be allowed to do some work. If the signs of aging are beginning to become apparent, much can be done to salvage the productivity of the worker. A few who are outstanding in production departments, for example, can be taken off production and made foremen or supervisors. Others can be placed where the importance of their increased accuracy outweighs the demand for speed.

"When a person reaches that stage of life when a modification of his activities becomes imperative, it is sometimes wise or even necessary to change over to an entirely different type of work. If a person knows or suspects that change to another type of work is apt to become mandatory at 60 or 65, he is wise to embark on his second career a few years earlier, because he is then in a better condition to learn his new duties and he has a better chance of finding an acceptable opening."

Vomiting in Children May Be Sign of Emotional Disorder

(Continued from Page 96)

the child, such as an operation or infectious illness. In these cases it would appear at first glance that the operation or illness was the 'cause' of the vomiting. The operation or infectious illness is only the trigger mechanism setting off the reaction which has been building up for many months or years previously. The basic difficulty is to be found again in the parent-child relationship, and the ultimate cure is brought about by correcting the basic difficulties in the parent-child relationship."

Dr. Laybourne stated that vomiting in adolescents and adults also may be a common symptom of an emotional disturbance.

Dr. Laybourne is associated with the departments of pediatrics and psychiatry, University of Kansas School of Medicine.

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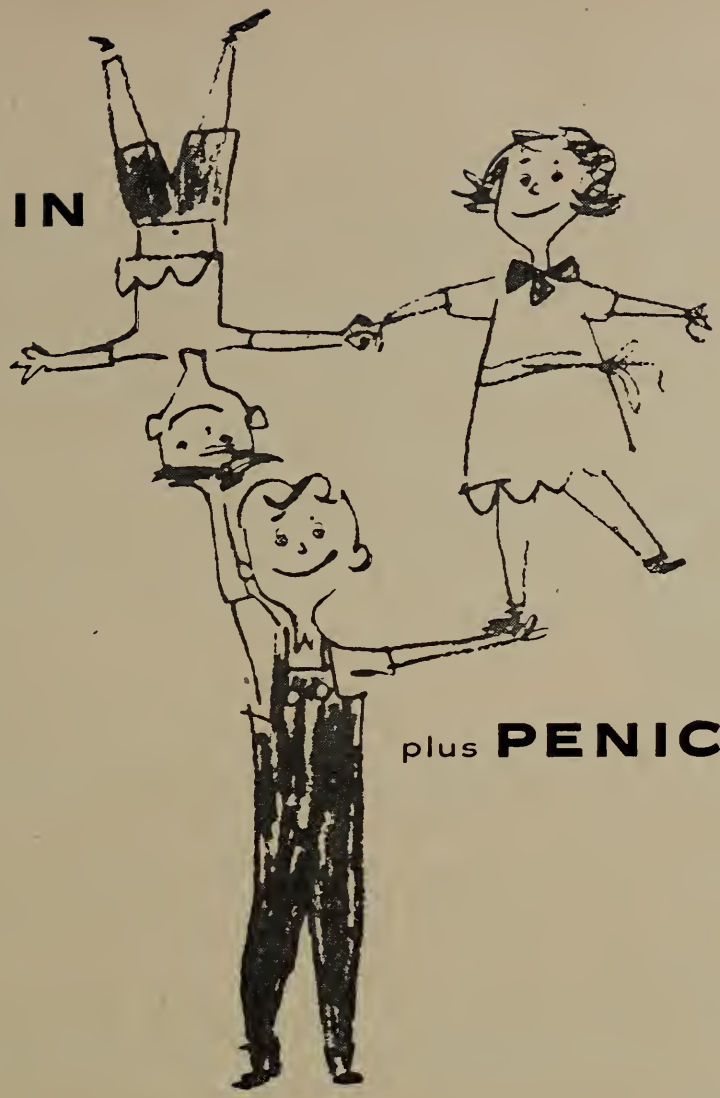

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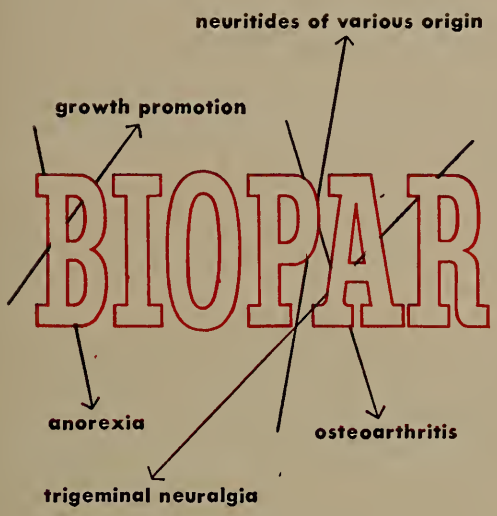

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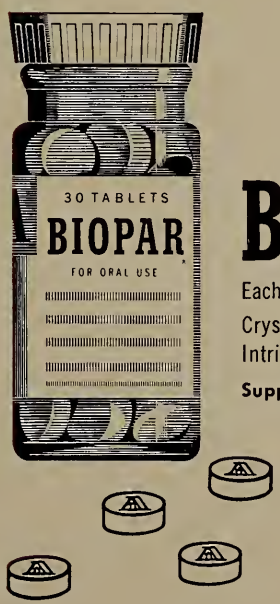

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1. Segal, M.S., et al.: Advances in the Physiology and Treatment of Bronchial Asthma, Quart. Rev. Allergy & Applied Immunology 6:399 (December) 1952.

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Distribution of Physicians in United States Very Good

A seven-year study has disclosed that the distribution of physicians in the United States in relation to the people they serve is extraordinarily good.

The first of its kind, the study was conducted by Frank G. Dickinson, Ph.D., Chicago, director of the American Medical Association's Bureau of Medical Economic Research. Dr. Dickinson, who used 1950, a population census year, as the basis for the study, made his report here at the 50th annual Congress on Medical Education and Licensure, held in Chicago.

To make this study, Dr. Dickinson divided the country into 757 areas, using the trading area principle which is based on road systems and marketing habits of the people, not on state, county and city boundaries.

In the 757 areas, Dr. Dickinson found there were 15,192 towns, villages and cities with one or more physicians; 5,311 of these towns, villages and cities were served by one active practicing physician. The number of persons in each area per active practitioner varied from 5,100 in the area around Monticello, Utah, to 380 in the Rochester, Minn., area.

Dr. Dickinson included in the category of active private practitioners only those physicians engaged in general practice or part-time or full-time specialization. Not included in the category were those physicians in the government or armed services, interns and residents, those retired or not in practice, and those in industry, teaching, research or administrative work.

Seventy-five of the 757 areas had more than 2,000 persons per active physician. However, Dr. Dickinson explained, these areas were among the most sparsely populated ones in the nation, located in the mountain, west-north-central, and east-south-central regions of the country. The addition or redistribution of only 361 physicians into these areas would have alleviated this condition, he added.

Dr. Dickinson pointed out that while one-sixth of the land area of the United States was outside a 25-mile radius of the closest town with a physician in active private practice, only one-sixth of one per cent of the nation's population lived in this territory. With today's transportation, the physician is able to reach more patients in less time than his predecessor. A patient who is 30 miles away from his doctor today is actually closer in terms of time than most patients four miles away 50 years ago.

According to the report, in 1950 every city, town or village with more than 5,000 population had at least one physician in active private practice, as had 96 per cent of those with a population between 2,500 and 5,000, 88.3 per cent of those with a population between 1,000 and 2,500, and 21 per cent of

(Continued on Page 30)

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1. Boland, E. W.: Ann. Rheum. Dis. 12:125, 1953.
2. Boland, E. W., and Headley, N. E.: J.A.M.A. 148:981, 1952.

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Surgical Wounds Heal Satisfactorily Without Dressings

In certain cases, satisfactory healing of surgical wounds may be obtained without the application of postoperative dressings, it was reported in the *Archives of Surgery*, published by the American Medical Association.

"The advantages of leaving dressings off include the opportunity to observe the wounds more often, avoidance of irritation from adhesive tape, economics in surgical supplies and in time and effort of hospital personnel and surgeons, and occasionally reduction in hospital stay," it was stated by Drs. Carl J. Heifetz, Frank O. Richards and Montague S. Lawrence, St. Louis.

The doctors based their conclusions on two studies of 150 patients. One study involved 102 patients in whom satisfactory healing was obtained without dressings. In the second study, 48 patients were observed. For comparative purposes, they were divided into three groups—those in whom wounds were covered at the termination of the operations by the customary gauze dressings, those in whom wounds were covered by similar dressings which were removed 24 hours after the operations and those in whom wounds were left without dressings. Equal and satisfactory wound healing occurred in all three groups, the doctors stated.

There was ready acceptance by patients of the principle of leaving wounds without dressings, according to the doctors. In fact, many patients expressed satisfaction in seeing the progress of their wounds from day to day.

"The results of these observations seem to corroborate our conclusions from experiments on rabbits that the application of a dressing to a clean, undrained, well-coaptated wound has no significant gross effect on wound healing," the doctors said.

"A close examination of the data suggests that bacterial counts were lower oftener when the wounds were left without dressings, but the statistical analyses show that this tendency could be explained on the basis of chance variation. A repetition of these experiments with more rigid controls may reveal whether uncovered wounds actually show less bacterial contamination.

"The concept, widely held since the beginning of the aseptic era of surgery, that dressings aid in preventing bacterial infection may accordingly require alteration."

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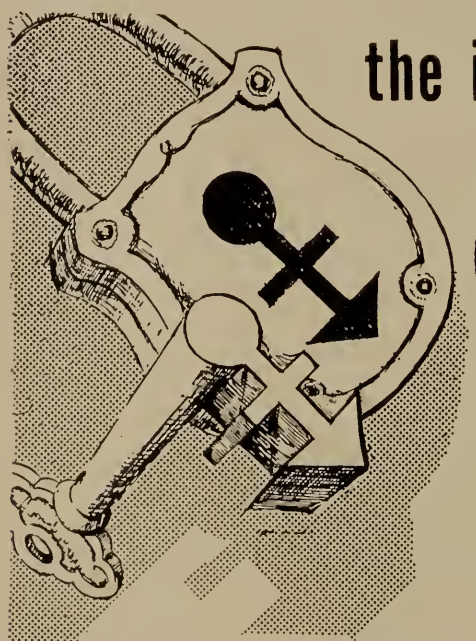

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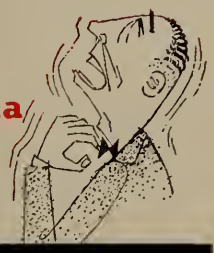

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Night Driving Hazards Increased by Tinted Glass

Use of tinted glass in automobiles or the wearing of colored glasses for night driving is dangerous because it causes decreased visual efficiency, in the opinion of Dr. Paul W. Miles, St. Louis.

"Particularly unfortunate is the popular selection of pink for glasses and aquamarine green for the windshields," Dr. Miles wrote in a recent issue of *Archives of Ophthalmology*, published by the American Medical Association. "While pure red and pure green filters may be quite transparent, in combination they are opaque."

Night driving is a visual task similar to walking into a dark movie theater, according to Dr. Miles. When a person first walks into a dark movie theater there is poor visibility of the seats until the eyes have adapted themselves to the dark although the screen can be seen very well.

In night driving, every change from light, such as headlights, to dark and from dark to light requires a new adaptation of the eyes. This adaptation process is so slow that if it occurred in a dark movie theater the seats forever would remain black against black, just as the objects at a distance or the shadows appear on the road.

"As the driver studies the road at the distance limits of the headlights, he constantly tests his visual thresholds," Dr. Miles said. "Objects come into view, attract attention, and are finally identified, as the automobile rapidly approaches. Under threshold conditions, an image may form on the retina 50 times and be so weak that only 25 attention responses follow. Any decrement in illumination or visual efficiency during high-speed night driving could delay reaction enough to result in a serious accident.

"Modern windshields were made green because large areas of glass let in too much heat from the sun. A green filter cuts out the red and infrared rays which carry heat. For purposes of night driving this windshield becomes the worst possible selection, because automobile headlight is unbalanced. Almost two-thirds of headlight energy is concentrated in the red end of the spectrum, and only one-third is in the range to which a green windshield is most transparent."

Tinted glass becomes even more dangerous at night when headlights are turned down or when the intensity is diminished by mud or mechanical defect, he stated. In addition, even the slightest tinted glass adds to the night visual problems of color-blind persons.

Dr. Miles pointed out that tests have shown that visual acuity is markedly decreased by the use of tinted glass for night driving. Normal vision is 20/20. During night driving visual acuity is 20/32 through colorless glass, 20/30 through light yellow glass, 20/40 through pink glass, and 20/46 through green windshield glass, and 20/60 through the combination of pink glasses and a green windshield.

"Even more damning is the effect of tinted glass on resolving power during night driving," he stated. "A pair of objects which would appear separate at 100 feet through a clear windshield, would appear single through a green windshield until the distance had decreased to 25 feet.

"Green windshield glass should be in a separate layer, to be moved aside for night driving. Persons with defective vision, including color blindness of the common type, should be advised to add auxiliary headlights to their automobiles and to avoid any type of tinted glass for night driving."

Dr. Miles is associated with the department of ophthalmology and the Oscar Johnson Institute of the Washington University School of Medicine.

American Medical Association President Tours West

Dr. Edward J. McCormick's extended tour of the West Coast was most fruitful in regard to the number of people he was able to reach directly with the positive story of what the A.M.A. is doing in the way of public service.

He gave six speeches, beginning in Albuquerque, January 16, and ending in Sacramento, January 29. The total audience in attendance at the various meetings was approximately 3,000, about two-thirds of whom were non-medical personages.

In Sacramento, where he was the guest of the Sacramento Chamber of Commerce and the Sacramento Society for Medical Improvement, a record crowd of more than 400 persons turned out for a 7 a.m. breakfast to hear him discuss the public service aspects of the A.M.A. and the need for continued cooperation between business, industry and the professions. His remarks were greeted by a spontaneous, standing ovation.

At Albuquerque, Dr. McCormick talked to a standing-room-only audience in the auditorium of the Veterans Administration Hospital, dedicating a cobalt-60 "bomb" for the Lovelace Clinic.

Nearly 800 persons attended the 84th annual meeting of the San Diego Chamber of Commerce. This was held in cooperation with the San Diego Medical Society. Here again the audience was extremely enthusiastic. At the joint meeting of the Los Angeles Chamber of Commerce and the Los Angeles Medical Society, another group of about 800 persons came to hear Dr. McCormick in the Biltmore Bowl. He also spoke in Pasadena before an overflow crowd at a luncheon meeting of the Chamber of Commerce and Civic Association. Another talk was before a large and equally enthusiastic audience in San Francisco. That, too, was jointly sponsored by the local chamber of commerce and the local medical society.

—A.M.A. Secretary's Letter

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Herrold, R. D.: Surg. Clin. North America *30*:61, 1950.

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Distribution of Physicians in United States Very Good

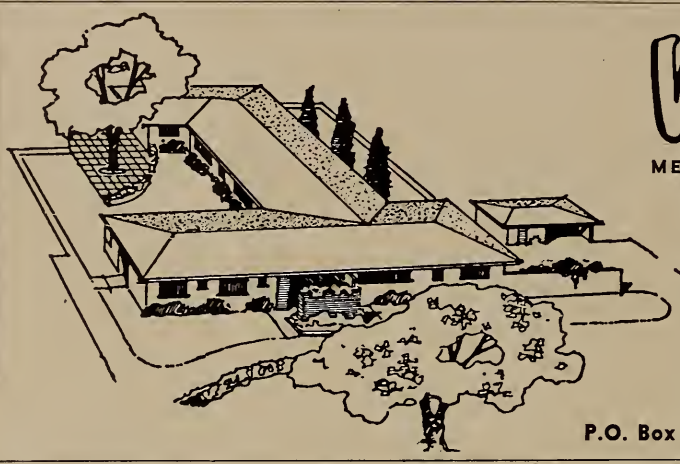
(Continued from Page 12)

those with a population between 100 and 1,000. More than half of the latter group had less than 250 inhabitants, it was added.

Dr. Dickinson's report stated that the recent, rapid rate of medical progress has been aided by better food, housing, sanitation, etc. It was Dr. Dickinson's opinion that, from the standpoint of public welfare, the greatest current shortages of highly trained personnel occur in the fields of physics, chemistry and teaching.

The survey touched on the subject of physicians in the armed services during World War II. At that time, 40 per cent of the country's physicians were in the armed services, leaving 60 per cent to care for the 91 per cent of the population who remained civilian. During this time, civilians economized on the use of civilian physicians, he stated, and most indices of health indicated improvement during the national emergency—a situation which would probably repeat itself in any future national emergencies, he added.

The report is entitled "The Distribution of Physicians by Medical Service Areas."



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A successful abdominal operation on a two-pound, seven-ounce infant was reported in a recent issue of the *Journal of the American Medical Association.*

The child, believed to be the smallest so treated, was born two months prematurely. On the 46th day after birth, a congenital narrowing of the outlet from the stomach was discovered. The condition was corrected by surgery, according to the article.

On the ninth day following the operation, the wound began to separate. This was corrected by a second operation, and the infant recovered completely.

The report was made by Drs. Paul Sullivan and Harry Lawler, Billings, Mont., and Dr. Richard Chambers, Glendive, Mont.

Expresses Views on Fee-Splitting Publicity

An excellent, down-to-earth article, written by Dr. Stanley S. Truman, past-president of the American Academy of General Practice, and expressing his views on the furor and publicity attendant on the *Collier's* story of October 30, appeared in the December issue of *GP*, the academy's publication. If you have access to this journal, Dr. Truman's article is well worth reading.

The A.M.A. Secretary's Letter

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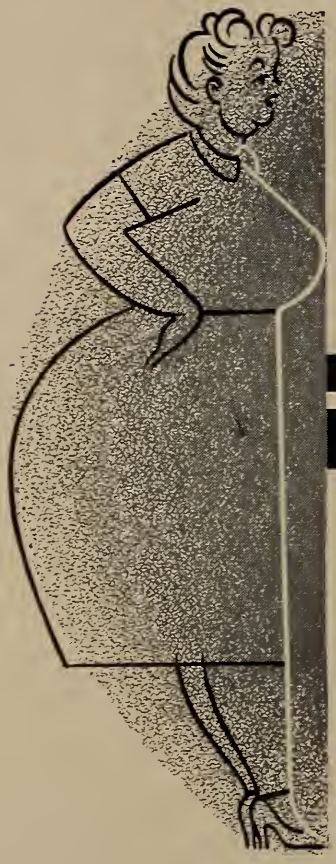

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1. Buxton, C. L., and Vann, F. H.: New England J. Med. 236: 536, 1948.
2. Cushney, A. R.: Textbook of Pharmacology and Therapeutics, ed. 10, Philadelphia, Lea & Febiger, 1943, pp. 436-437.

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Unnecessary Government Spending Hit

In the promotion of our interassociation relations program, the American Medical Association is participating in a new organization known as the Farm-City Conference Board.

This board is made up of farm organizations, industrial companies, and general associations, such as the National Grange, Foundation for American Agriculture, General Electric, International Harvester, Avco Corporation, the Quaker Oats Company, the General Federation of Women's Clubs, Kiwanis International and others.

The first major project of the Farm-City Conference Board is a "Crusade Against Unnecessary Government Spending."

The 15,000 General Federation of Women's Clubs throughout the United States have assumed the responsibility for stimulating group action at the community level, and we are asking county medical societies to cooperate with them. This non-partisan crusade certainly warrants the support of the medical profession.

The crusade is scheduled for March 1 to March 15, when Americans are extremely conscious of their heavy tax burdens. Taxes always will be necessary, of course; however, this crusade is aimed at a reduction through the elimination of wasteful and unnecessary government spending.

Enlistment and promotional plans should be initiated as soon as possible.

Enlist the support of other community leaders, such as chamber of commerce heads, newspaper editors, radio and television station managers, heads of ministerial associations, and school superintendents.

Farm-City Conference Board headquarters are located in Room 7-109, Merchandise Mart Plaza, Chicago 54, Illinois. *The A.M.A. Secretary's Letter*

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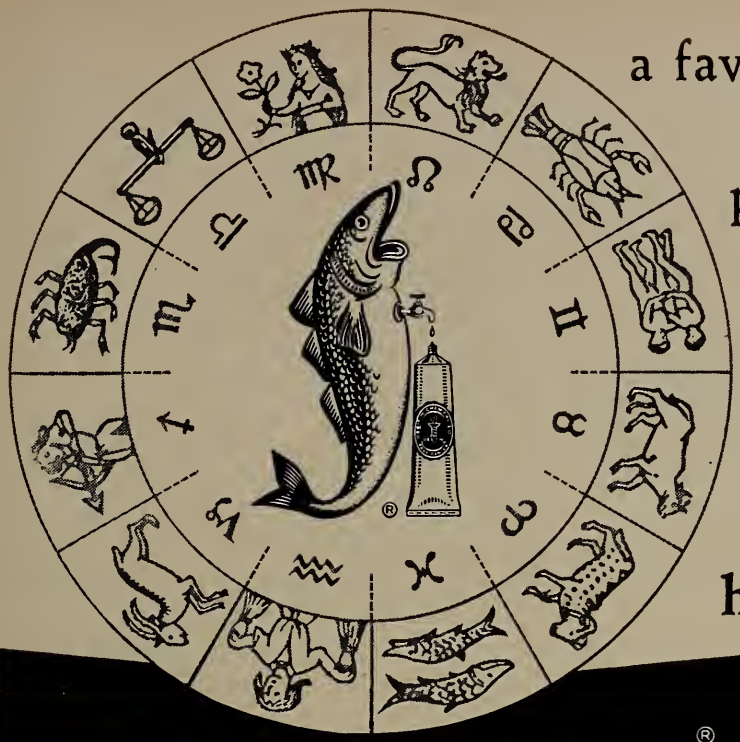

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1. Grayzel, H. G., Heimer, C. B., and Grayzel, R. W.: New York St. J. M. 53:2233, 1953.
2. Heimer, C. B., Grayzel, H. G., and Kramer, B.: Archives of Pediatrics 68:382, 1951.
3. Behrman, H. T., Combes, F. C., Bobroff, A., and Leviticus, R.: Ind. Med. & Surgery 18:512, 1949.
4. Turell, R.: New York St. J. M. 50:2282, 1950.

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Study of Relationship of Noise to Health

Study of the relationship of noise to health, especially in industry, and an interpretation of the findings so that management in industry and the public can understand them, is needed, it was stated editorially in a recent issue of the *Journal of the American Medical Association.*

Most normal persons have a wide adaptability to noise and once adaptation to a given noise level is achieved, energy is not expended by those working in such an environment at a rate significantly greater than normal, the editorial pointed out, adding:

"There are many reports claiming that noise adversely affects public health, but the possible relationship between noise and health needs further study. In view of the problems related to modern industry such study is now in order."

Since the advent of power-driven machinery, man has been beset with the effects of unwanted sound, according to the editorial. The factors that influence the effects of noise on man include (1) the fact that noise is sound of an unwanted character, (2) extremes of pitch or frequency, (3 extreme loudness, (4) unexpectedness, (5) uncertainty of the direction from which it comes, (6) unfamiliarity or inability to identify its cause, and (7) the state of health of the person exposed.

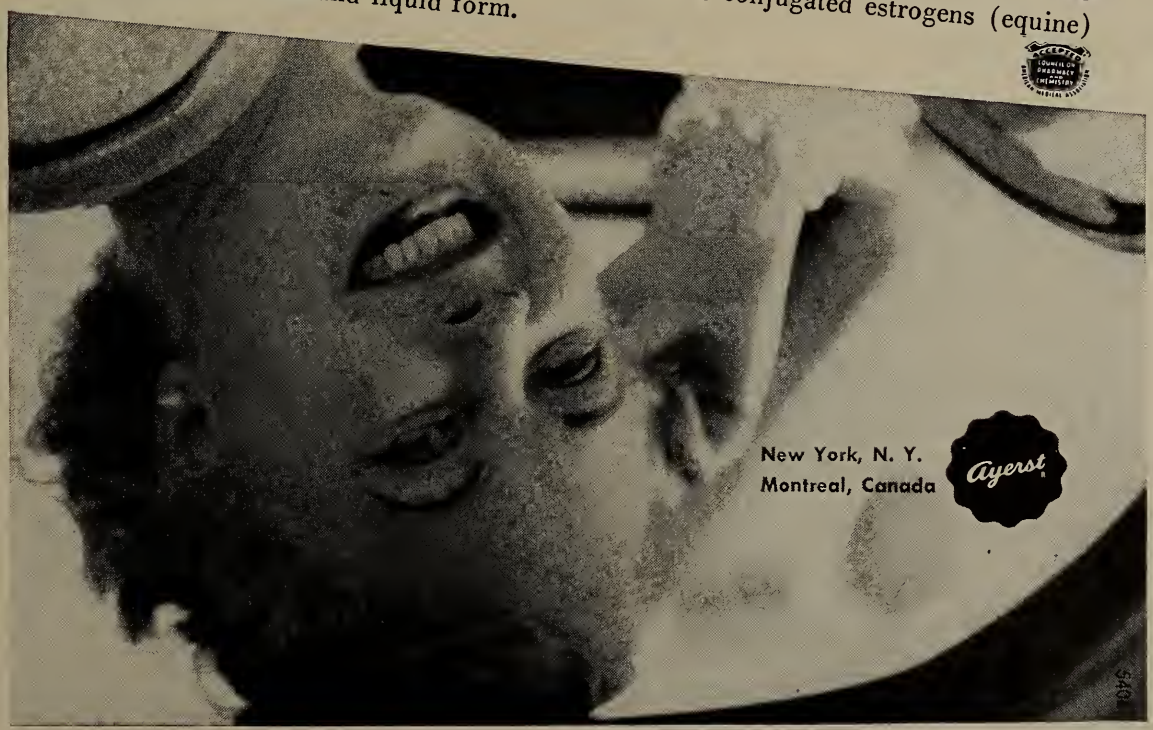
"It is necessary first of all to distinguish between acute exposure (sharp, sudden noises) and chronic exposure (continuous or regularly intermittent noises)," the editorial pointed out. "The undesirable effects of noise may be classified as (1) effects on efficiency, (2) effects on auditory acuity, and (3) effects on communication."

In small groups of persons, exposure to noise for several hours may cause vague uneasiness, headache, tremors, nausea, tenseness or insomnia, the editorial stated. Discontinuous loud mechanical noise and soft music have been found to be more disturbing than continuous loud noise, and, although either temporary or permanent deafness may result from exposure to noise, it is not clear just what intensity is required to damage the auditory nerve, it added.

The problem of noise control has been approached from many angles, the editorial said. There are laws dealing with nuisance, and from the legal standpoint noise is a nuisance if it is excessive, unreasonable, unnecessary, or injurious to health and capable of being mitigated. Most leases have clauses concerning noises, especially after 11:00 p.m. Persons employed in factories where noise cannot be eliminated are advised to wear ear plugs. In industries where employees are constantly subjected to loud noises, hearing tests should be obtained at regu-

(Continued on Page 40)

For every patient who presents such obvious menopausal symptoms as **hot flushes,** there will be another with symptoms equally distressing but not so clearly defined; **arthralgia** as well as insomnia, headache, easy fatigability, are good examples. Frequently these symptoms are due to declining ovarian function but are not so recognized because they may occur long before, or even years after, menstruation ceases. In such cases, the patient should have the **benefit** of estrogen therapy. **"Premarin"** (complete natural equine estrogen-complex) not only produces prompt symptomatic relief but also imparts a gratifying and distinctive **"sense of well-being."** Has no odor . . . imparts no odor. "Premarin"® estrogenic substances (water-soluble), also known as conjugated estrogens (equine) is supplied in tablet and liquid form.



Study of Relationship of Noise to Health

(Continued from Page 36)

lar intervals, and a system of rotation to work in quieter surroundings should be in force.

"Practical industrial noise control involves the cooperation of management, engineering, safety, and medical personnel," the editorial concluded. "Much can be done to damp out the vibrations of heavy machines and thereby reduce their noise, but the best place to attack this phase of the problem is in the original design of the machine."

Parental Education Suggested To Prepare Children for Surgery

Parents should be given instructions in how to prepare their children for surgery, it was suggested editorially in a recent issue of the *Journal of the American Medical Association.*

"Parents can play an extremely important role in preparing the child psychologically and emotionally before admission to the hospital," the editorial stated. "Actually, it is important that all three—the

(Continued on Page 42)

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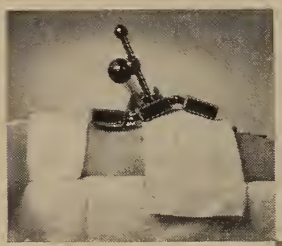

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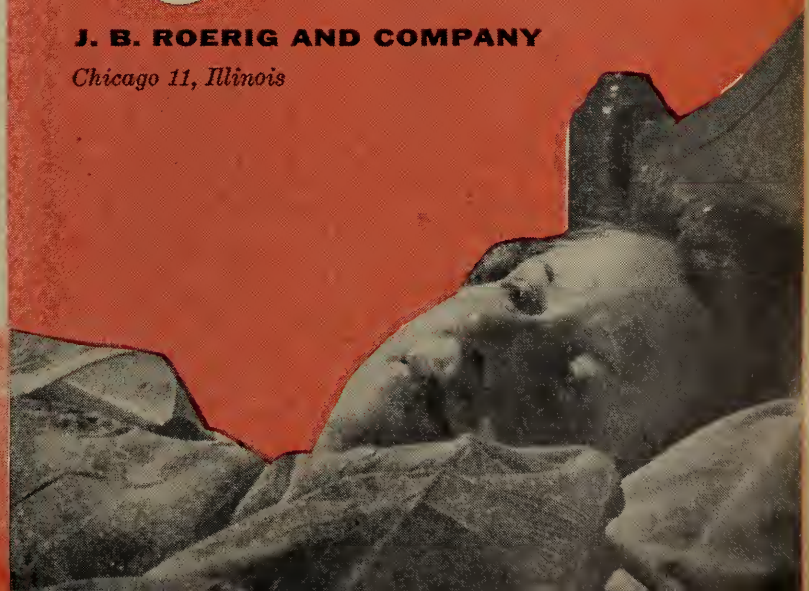

Parental Education Suggested To Prepare Children for Surgery

(Continued from Page 40)

mother, father, and child—know in a general way what will ensue in the hospital. The parents should possess sufficient information in order to answer those questions the child is certain to ask.

"Parents, and mothers particularly, need guidance in preparing a child for a hospital experience. A gigantic step forward in terms of parental education could be taken if the medical profession together with hospitals would routinely issue instructional leaflets to parents of children who are about to become surgical patients."

Reactions of children having their first surgical experience in a hospital vary, according to the editorial. Children over five years of age seem to forget quickly the stay in a hospital, while those under five years are more likely to show transient behavior changes such as fear of the dark, fear of being left alone, and such regressive behavior phenomena as bed wetting, wanting to be fed, and fear of doctors and nurses. Disobedience, temper tantrums, increased dependency, and spiteful, defiant behavior are more likely to occur in older children.

It has been found, the editorial said, that the three principal anxieties which concern children who

(Continued on Page 46)

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Fig. 3, Case 103 before therapy.

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Fig. 6, Case 103 after 4 months PRANTAL therapy.

* Heineken, T. S.: Rev. Gastroenterol. **20**:829, 1953.

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Parental Education Suggested to Prepare Children for Surgery

(Continued from Page 42)

are admitted to a hospital for the first time are: (1) separation from the home, (2) the nature of the anesthetic, and (3) the operation itself.

A simple, forthright explanation of the operation, anesthetic, and hospital personnel will help to alleviate part of this anxiety. The bringing to the hospital of a familiar toy, pair of slippers or a pillow will create a tangible tie to the home in the child. Admission to the hospital some 24 hours before an operation often will enable the child to overcome a sense of initial panic, the editorial added.

Most Bowleggedness in Children Will Disappear Spontaneously

"Exaggerated bowing of the lower extremities occurs with surprising frequency in apparently healthy, well-nourished infants and children," three Ann Arbor, Mich., physicians wrote in a recent issue of the *Journal of the American Medical Association*. "In most instances the prognosis for complete, spontaneous regression of the bowing is excellent, the legs usually having straightened by the age of four or five years." However, in some cases, the doctors stated, x-ray examinations are imperative to rule out significant diseases.

(Continued on Page 49)

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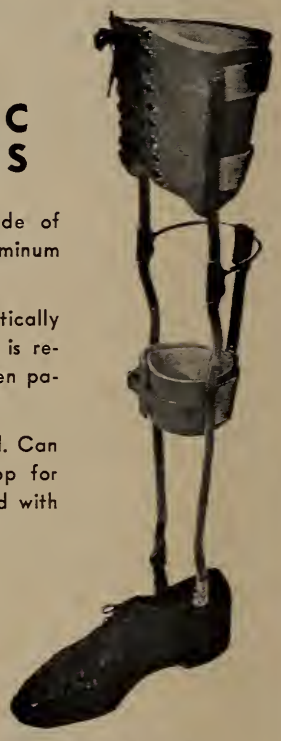

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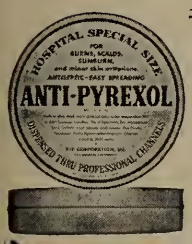
Most Bowleggedness in Children Will Disappear Spontaneously

(Continued from Page 46)

It is recognized that virtually all infants have some degree of bowing of the legs that frequently persists into the second or third year, according to the doctors. In some instances the bowing is due largely to normal distribution of adipose tissue, which in infancy tends to be more heavily deposited on the outer surfaces of both the thigh and lower leg, but in most infants some degree of actual bowing of the bones is present, they added.

The doctors reported on a study of 14 markedly bowlegged, healthy, well-fed children. Spontaneous regression of the bowing occurred in all cases by the time the children were five years of age. Three of the children were brothers, exemplifying the familial aspect of bowlegs, the doctors pointed out. This fact, they said, is of no greater significance than similar minor familial tendencies such as protruding ears or a large nose.

The report was prepared by Drs. John F. Holt, Howard B. Latourette and Ernest H. Watson. They are associated with the departments of radiology and pediatrics, University of Michigan, Ann Arbor.



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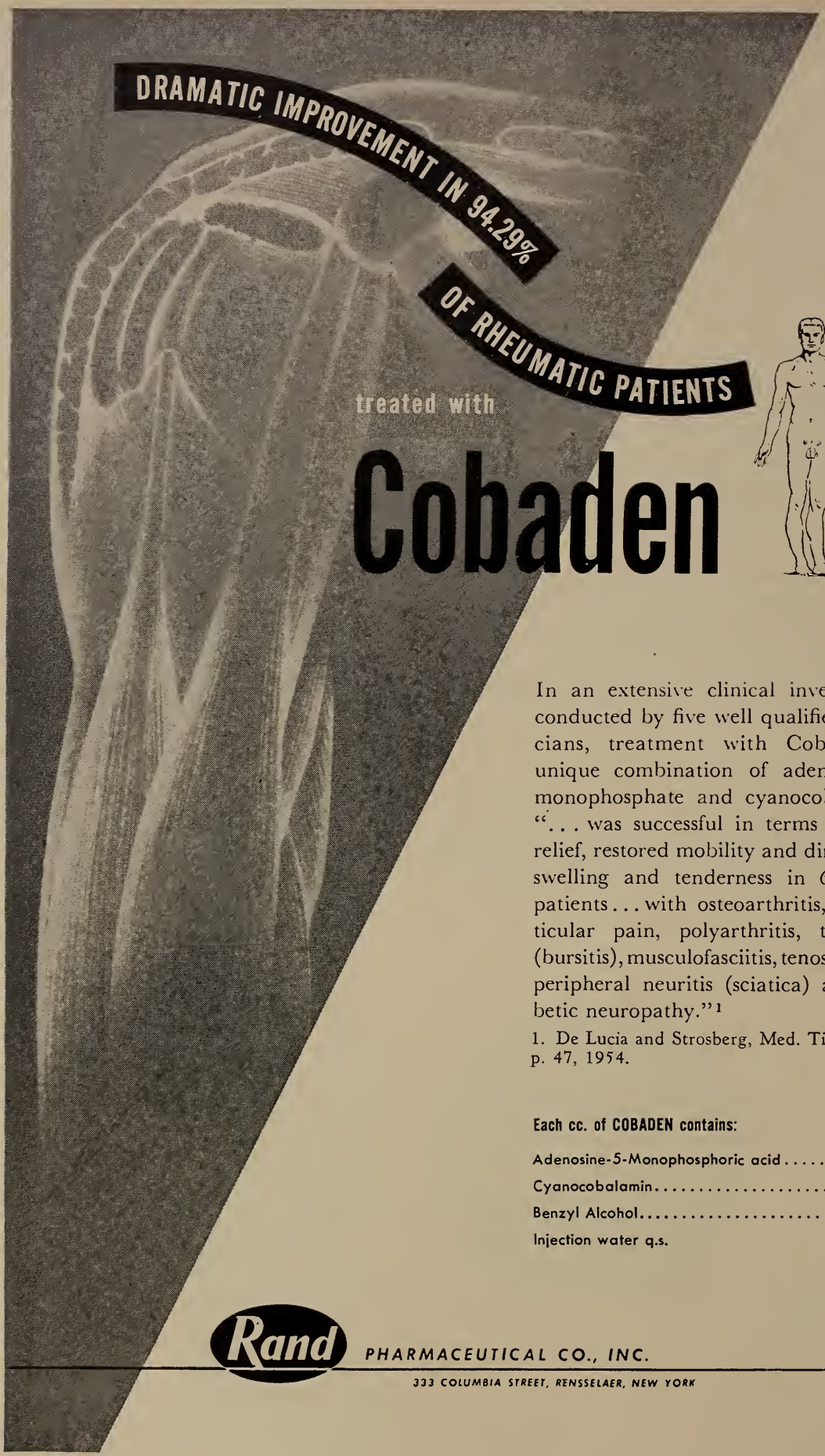

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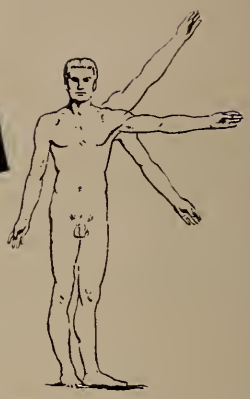

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1. De Lucia and Strosberg, Med. Times 82:1, p. 47, 1954.

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Rautensin can be of benefit to every patient with essential hypertension. In mild, moderate, and labile hypertension, it usually suffices as the sole medication. It is especially effective in the harassed, frustrated patient showing great fluctuations in arterial tension. In more severe hypertension, the subjective improvement it produces serves as an excellent platform upon which to superimpose the action of a second, more potent hypotensive agent.

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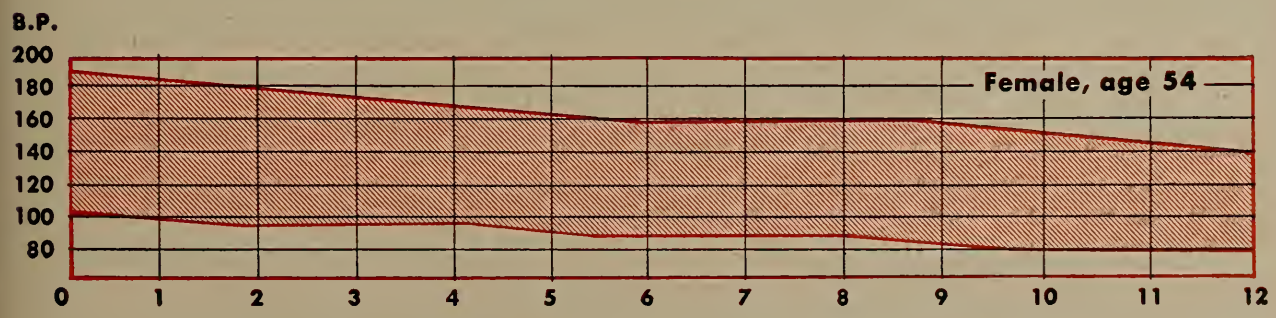
Each Rautensin tablet contains 2 mg. of the alseroxylon fraction of Rauwolfia serpentina, which is tested in dogs for its hypotensive, bradycrotic, and sedative actions. Initial dose, 2 tablets (4 mg.) daily, continued for 30 to 60 days, or until the full effect of the drug is apparent. Maintenance dose, 1 tablet (2 mg.) daily. Rautensin is remarkably free from side effects and development of tolerance, even when given in several times the recommended dosage. There are no contraindications to its use.



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Pills Won't Reduce Weight—Only Contents of Pocketbook

"Sugar and spice and everything nice"—that's what most reducing nostrums are made of.

Fleecing the fat is the sole objective of most of the patent medicines and fancy devices promoted today for "slenderizing," according to Dr. Max Millman, Springfield, Mass.

Such medicines and devices are inert, useless, ineffective and a waste of time and money. People using them are looking for a short cut to weight reduction—a thing which does not exist—Dr. Millman wrote in a recent issue of *Today's Health* magazine, published by the American Medical Association.

Usually such nostrums contain only syrup, flour, sugar, powdered milk, powdered eggs, vitamins, minerals and flavoring agents, Dr. Millman said, adding:

"Another word to describe reducing nostrums of today is placebo, defined in the medical dictionary as 'a make-believe medicine given to please or gratify the patient.' They are like so much sugar, salt or other foodstuff having no pharmacologic or medicinal value whatever. They do not diminish the appetite; they do not 'burn up' fat; and they do not cause weight loss.

"The regulation and restriction of food intake and the cultivation of better eating habits still form the basis of all effective and permanent reducing.

"More people are weight-conscious today than ever before. In the past, appearance and a shapely figure were the motives for reducing. Today the factors of life and health have been added. Obesity not only predisposes to a long list of serious conditions including heart disease, diabetes and high blood pressure, but also shortens life to a shocking degree. The knowledge of these facts has become widespread and many millions of the obese are anxious to bring their weight down.

"The patent medicine trade is quick to exploit the popular interest in reducing. It victimizes the overweight with scores of remedies and devices. In addition to the candy pills, food tablets and vitamin capsules, slenderizing soaps, creams, lotions and bath salts are offered to those who prefer to take the treatment externally rather than internally.

"Vibrators and devices for massage, exercise and sweating are to be had by those who are mechanically rather than medicinally minded. And, finally, there are milk farms and reducing parlors (or 'slenderizing salons' as the promoters like them to be called) for those who can afford to be fleeced in more elaborate and expensive fashion.

"No weight reduction is possible unless food intake is less than the calories expended. The advertiser who tells you differently is not telling the truth. No drug or chemical can remove calories from the food you eat."

Dr. Millman pointed out some of the early and current "suggested remedies for overweight," all of which are worthless and some of which are harmful:

1. Thyroid extracts—which are ineffective against obesity and which, used unwisely, may lead to serious complications.
2. Glandular extracts.
3. Dinitrophenol—a drug which can cause cataract and blindness and the sale of which is prohibited in many states.
4. Cathartics and purges—as they rush the food through the digestive tract so fast that it can't be absorbed properly and the irritated bowel may suffer permanent, irreparable damage.
5. Noncaloric, indigestible materials such as methylcellulose.
6. Mineral oil—as it interferes with the absorption of fat-soluble vitamins A, D and K, and the minerals calcium and phosphorus.

It's the Humidity That's Shocking

Here's something you can blame on the humidity—that shock you received recently when you touched someone or something.

When the humidity is very low, such as on cold, dry days, there is a tendency for persons and objects to develop a static electrical charge on the surfaces, it was explained in a recent issue of the *Journal of the American Medical Association.* This tendency is enhanced by friction, such as walking across a rug or sliding over an automobile seat. A moving automobile, for instance, readily develops an electrical charge due to the friction of the air flowing over its surface.

What can you do about this phenomenon? Indoors, relief can be obtained by humidification of the air in the room, according to the *Journal.* One way of minimizing the development of a static charge on the surface of an automobile is to attach a piece of "conductive rubber" to the car so that the rubber drags on the ground, allowing for the discharge of the electrostatic charge.

Those persons who find the slight shock disturbing can avoid the situation by touching the object from which it is suspected a shock will result with something metallic, such as a coin or a key gripped tightly in the hand, the *Journal* said. This will permit the electric discharge to pass between the metal coin or key and the object the person is about to touch.

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Note: Usual precaution involved in hormone therapy should be observed.

World Medical Association Plans Tour in Connection with Assembly

The World Medical Association, through the Rounds Travel Service, Inc., 52 Vanderbilt Avenue, New York, has announced several suggested tours and itineraries in conjunction with the Eighth General Assembly in Rome, September 26 through October 2.

In addition to the main itinerary covering the above dates and selling as low as $145 for the land arrangements, Rounds Travel Service also has prepared a choice of eight preconvention and post-convention itineraries covering all the countries on the Continent.

Tour brochures will soon be mailed to all members of the U. S. Committee of the World Medical Association. The suggested tours are listed, but the travel service is equipped and prepared to handle all transportation needs and to prepare any type of itinerary desired.

Since vacation travel is expected to be heavy during the coming year, the travel agency suggests that early arrangement be made.

The A.M.A. Secretary's Letter

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California MEDICINE

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Volume 80 MARCH 1954 Number 3

Peripheral Nerve Injuries

Early Surgical Treatment

EUGENE M. WEBB, M.D., San Francisco

• *Injuries to the major nerves of the extremities are common.*

Surgical treatment should be undertaken soon after injury that completely or partly severs a peripheral nerve, because permanent changes appear in muscles that are deprived of nerve supply for more than a few months. The muscular changes may prevent restoration of normal function even though actual nerve regeneration is adequate.

Injuries which do not completely sever a nerve may be hard to diagnose but special methods such as electromyography are helpful.

PERIPHERAL NERVE INJURIES are common occurrences in peace and in war. They are frequent concomitants of trauma to the extremities. Even apparently minor trauma that does little damage to other structures may produce significant changes in peripheral nerves, resulting in lesions in continuity.

Recognition of complete severance of a peripheral nerve is a simple matter requiring only suspicion on the part of the examiner and a rapid review of motor function. Sensory examination is also helpful but may be misleading because many patients report "numbness" where there is no actual neurological impairment. If a patient can make a normal fist, extend the fingers, thumb and wrist and abduct and adduct the fingers, it is reasonably certain that there has been no complete acute lesion of any of the major nerves of the forearm and hand. If it can be demonstrated further that there is normal sensation in the tips of the index and little fingers, it is almost a certainty that there has been no injury of any kind to the median and ulnar nerves. Similar simple but reliable tests apply to the lower extremities.

In cases of incomplete lesion or in those in which some question of an incomplete lesion is presented, evaluation becomes more troublesome and at times repeated examinations or special methods, such as electromyography, are required. Improvement in the care of these patients is possible despite the diagnostic and therapeutic problems they present.

The profession is aware generally of the benefits that accrue from suture of completely divided nerves. That these benefits appear with even greater regularity following the proper surgical treatment of incompletely divided nerves, and that in both groups the benefit is in inverse proportion to the lapse of time between injury and repair, are not so widely appreciated.[5]

Following injuries to peripheral nerves the affected muscles begin to undergo atrophy, acute

Presented before the Section on Industrial Medicine and Surgery, at the 82nd Annual Session of the California Medical Association, Los Angeles, May 24-28, 1953.

From the Department of Neurological Surgery, University of California Medical School, San Francisco.

degeneration and fibrosis.[8] Although the rate of progression of these processes depends upon other factors such as age, infection, associated vascular injuries and perhaps upon the presence or absence of an adequate physical therapeutic regimen,[2,4,6] other things being equal, the longer the muscles are deprived of their nerve supply, the greater will be the pathological changes and the poorer will be the functional recovery. The actual nerve regeneration, while impaired by delay, seems a less important factor. For this reason, nerve suture even several years after injury is worth while where sensory recovery alone is sought. (In one case peroneal neurorrhaphy done 12 years after complete division of the nerve brought about an estimated 80 per cent return of sensory function.)

That the deleterious processes of atrophy, degeneration and fibrosis are directly related to the length of time the muscle is deprived of nerve supply cannot be denied, yet this must not be construed as a recommendation for suture immediately following injury. Other considerations, largely technical, obtain and it is widely held that the optimum time for neurorrhaphy is three to five weeks after acute injury. As the nerve degenerates the sheath toughens and assumes characteristics that permit greater accuracy of approximation. Moreover, a more accurate estimate of the extent of intrinsic damage to the nerve can be made at that time.

Unfortunately the presence of a portion of the nerve supply does not protect the muscles from atrophy and fibrosis and these changes advance while spontaneous restoration of nerve supply is awaited. In addition, further damage to the nerve itself may occur as a result of progressive extraneural and intraneural fibrosis and scar formation at the site of injury.[3]

Incomplete lesions must be always, at least in part, lesions in continuity. Commonly the nerve is injured by direct blows, by adjacent fractures or, in war especially, by the passage of high-speed missiles near its substance. Such lesions also arise from pressure of tight casts, splints and tourniquets. Injections into or near a nerve may result in lesions of this kind.

Characteristic of lesions of this order are intraneural and extraneural hemorrhage and edema, giving rise to local impairment of blood supply and to local failure of conduction of nerve impulses. With the passage of time the area is invaded by fibroblasts which, as they mature and shrink, further constrict the nerve fascicles and perpetuate or aggravate the blockage of conduction. This fibroblastic response may be reflected clinically by a progressive neurological deficit. This progressive neurological loss is sometimes not apparent to either the patient or his physician because of the concurrent, unconscious development by the patient of compensating motions and tricks.

Much can be done surgically to lessen the effect of lesions in continuity. It must be done before atrophy, degeneration and fibrosis of the muscles have so far progressed as to be irreversible. The practice of waiting for spontaneous recovery or improvement often precludes eventual successful surgical treatment. Spontaneous recovery occurs so rarely that waiting cannot be justified. Surgical treatment is usually necessary in patients who do not show unequivocal evidence of motor and sensory recovery in four to six weeks.

If there is complete division of peripheral nerves, neurorrhaphy or nerve suture should be undertaken four to six weeks after the injury.

In this procedure, the severed ends having been identified, the scar and neuroma of the proximal end are resected. This is done with a series of transverse incisions until normal-appearing fasciculi and bleeding points are encountered. The distal end is similarly prepared, the pseudoneuroma being removed. The nerve sheaths of the two ends are held in approximation with fine forceps and anastomosed with interrupted sutures. Fine arterial silk is excellent although tantalum on an atraumatic needle is in vogue. An advantage of tantalum is that when it is used the status of the suture line in the postoperative period can be determined by x-ray. Neither seems to have any great advantage in terms of recovery, although tantalum tends to produce a late reaction.[7] It is important to refrain from approximating the freshened ends too tightly, as this encourages neuroma formation; a gap of one to two millimeters between the ends is ideal.[1] After careful hemostasis, the deep fascia may be closed, but never tightly.

In the equally important group of lesions in continuity the procedure of choice is neurolysis. There is considerable confusion even among neurosurgeons concerning the precise connotation of the term *neurolysis*. Commonly it refers to the intraneural injection of saline solutions in an attempt to free adhesions.

In the procedure as now sometimes employed, and herein advocated, the nerve is first freed from the thickened and scarred bed. Physiological saline solution is then injected gently into the nerve sheath without the application of real pressure since its purpose is merely to aid in the identification of minute transverse bands which encompass and compress the nerve fascicles.

These bands are then divided with a small sharp scalpel. This phase is done carefully, slowly and with the aid of a magnifying loupe. As the bands are cut

the fascicles are seen to expand and to bulge into the field. All the involved fascicles are freed in this manner, further injections of saline solution being employed intermittently as needed to reveal the remaining intrinsic scar. Intraneural bleeding is controlled with cotton pledgets and irrigation only. A tourniquet is not used and, as in neurorrhaphy, the deep fascia is not closed tightly.

The theoretical criticism that scar will again form following such a procedure is refuted in practice by the end results, which generally are gratifying.

384 Post Street.

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Campaign Hits Unnecessary Government Spending

In the promotion of our inter-association relations program, the American Medical Association is participating in a new organization known as the Farm-City Conference Board.

This board is made up of farm organizations, industrial companies, and general associations, such as the National Grange, Foundation for American Agriculture, General Electric, International Harvester, Avco Corporation, the Quaker Oats Company, the General Federation of Women's Clubs, Kiwanis International and others.

The first major project of the Farm-City Conference Board is a "Crusade Against Unnecessary Government Spending."

The 15,000 General Federation of Women's Clubs throughout the United States have assumed the responsibility for stimulating group action at the community level, and we are asking county medical societies to cooperate with them. This non-partisan crusade certainly warrants the support of the medical profession.

The crusade is scheduled for March 1 to March 15, when Americans are extremely conscious of their heavy tax burdens. Taxes always will be necessary, of course; however, this crusade is aimed at a reduction through the elimination of wasteful and unnecessary government spending.

Enlistment and promotional plans should be initiated as soon as possible. Mr. Herbert Hoover launched this crusade nationally in January.

Enlist the support of other community leaders, such as chamber of commerce heads, newspaper editors, radio and television station managers, heads of ministerial associations, and school superintendents.

Farm-City Conference Board headquarters are located in room 7-109, Merchandise Mart Plaza, Chicago 54, Illinois.

—A.M.A. Secretary's Letter

Systemic Lupus Erythematosus

Early Cytologic Diagnosis

EDMUND L. DUBOIS, M.D., Los Angeles

• The diagnosis of systemic lupus erythematosus—a relatively common disease—is difficult because of the variable nature of the symptoms, which resemble those of many other conditions. The finding of the characteristic cells is pathognomonic, although failure to find them does not rule out the diagnosis.

If the diagnosis is suspected the "L.E." cell test should be performed on two samples of blood from the veins and one from the bone marrow. After separation of a heparinized sample by centrifuge, a drop from the buffy coat is Wright-stained on a slide and examined for rouleaux formation and for a hematoxylin-staining material sometimes seen in intercellular bodies (which may be surrounded by a rosette of leukocytes) and sometimes seen as ingested by a leukocyte. Only the last finding is positively diagnostic of lupus erythematosus.

A statistical analysis of 62 cases treated at the Los Angeles County General Hospital is given. Because of the frequency of rheumatoid-like arthritic changes in the disease, all patients with this form of arthritis should be given the test. Spontaneous remission and then relapse after a long asymptomatic interval occurred in many cases. With early diagnosis and vigorous treatment with cortisone and corticotropin, many patients can be relieved of symptoms.

SYSTEMIC LUPUS ERYTHEMATOSUS is a relatively common disease. At the Los Angeles County General Hospital, 44 new cases were diagnosed in 1950 and 1951, as against 88 cases of acute rheumatic fever. In the same period there were only 18 cases of Hodgkin's disease, 39 cases of all types of acute and subacute leukemia and 36 cases of pernicious anemia in relapse—diseases which are not considered rare. In 1948 and 1949, before interest in lupus erythematosus led to the use of the Hargraves cell test at the hospital, only 11 new cases were discovered. The author believes that the general incidence is not increasing but rather that the concept of the disease has become broader and that by the Hargraves test, which seems to be pathognomonic, it is usually possible to confirm a tentative diagnosis.

The disease has no classic pattern; there may be many exacerbations and remissions affecting one organ, such as the skin, after which healing may take place and at the same time or even years later another organ, such as the kidney, may be affected.[4] Before the introduction of the Hargraves test the diagnosis in many cases could not be confirmed although the involvement of several systems suggested a "collagen disease."[8]

For an understanding of the cause of the varied symptoms of the disease it is important to recognize that generalized angiitis occurs in the majority of cases. In recent years there has been overemphasis on the abnormal changes in the connective tissue associated with lupus erythematosus—the so-called fibrinoid degeneration, particularly the "onion-skin" changes in the spleen and the "wire loop" thickening of the glomerular capillaries of the kidney. The vascular changes are quite as important. Figure 1 illustrates arteritis in the spinal cord due to lupus which caused paraplegia in a 22-year-old woman. Periphlebitis is also common. Because of angiitis the clinical findings often resemble those of periarteritis nodosa.

In 1948 Hargraves[8] described the characteristic cell of lupus erythematosus (generally called "L.E"

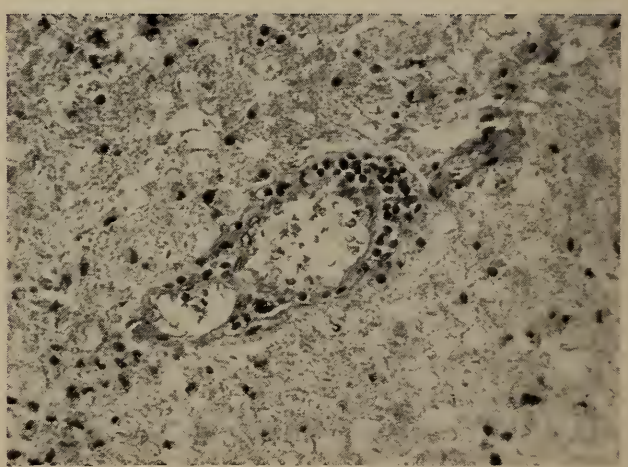

Figure 1.—Acute arteritis with edema of the surrounding tissue in the spinal cord of a 22-year-old woman with paraplegia due to lupus erythematosus (× 750).

Presented before the Section on General Medicine at the 82nd Annual Session of the California Medical Association, Los Angeles, May 24-28, 1953.

From the University of Southern California School of Medicine, Department of Medicine, and the Los Angeles County General Hospital.

This work was supported by Merck and Company and Mr. Joseph Gluckstein.

cells). The technique for detection of such cells which is here outlined,[5] and which is used by the author, is more accurate than the more complex methods heretofore described. In every case in which the disease is suspected two tests should be made of peripheral blood and one on aspirate from bone marrow, for sometimes the characteristic cells may be found on only one of these tests.

Simplified Technique for Detection of "L.E." Cells

1. Place a 10-cc. specimen of venous blood or several cubic centimeters of bone marrow aspirate in a 15-cc. test tube containing two drops of aqueous solution of heparin (50 mg. per cc.) and leave at room temperature for 30 to 60 minutes.

2. Centrifuge at approximately 2,000 r.p.m. for five minutes or until clear separation into three layers.

3. Remove the supernatant plasma with a Wintrobe pipette and discard it.

4. Pipette 1 cc. of the buffy coat into a Wintrobe tube and centrifuge it at 2,000 r.p.m. or until clear separation into three layers.

5. Again remove the supernatant plasma with a Wintrobe pipette and discard it.

6. Carefully aspirate the buffy coat into a Wintrobe pipette and smear it on three glass slides. Pull the smearing slide back and forth over one-half of the blood film to make a thin smear in which the cells can be more clearly seen if there are many leukocytes.

7. Stain the smear with Wright's stain in the usual manner.

8. Examine the slide, especially at the edges, for at least ten minutes under the oil immersion lens. In this length of time several thousand leukocytes will be studied. If any abnormalities are found, review the slide and prepare another for further study.

Interpretation of Findings in "L.E." Test

Four changes are looked for in the slide: increased rouleaux formation, "hematoxylin" bodies, rosettes, and "L.E." cells. In addition, erythrophagocytosis may be noted as a result of severe hemolytic anemia if that condition is present.[10]

Increased rouleaux formation is common in systemic lupus erythematosus and in other diseases when the proportion of globulin is increased and the cold agglutinin titer is high. The finding is therefore nonspecific.

"Hematoxylin" bodies are clumps of dark purple-staining material which may have the diameter of one to a dozen leukocytes, the largest being approximately the size of megakaryocytes observed in preparations of bone marrow aspirate (Figure 2). They may be perfectly round, ovoid, or irregular in outline. The material is most often homogeneous in consistency like that of the "L.E." inclusion but stains much more darkly, although lighter purplish parallel threads may be present. Berman called these bodies "free cloudy masses." They are probably the same as the hematoxylin bodies observed in tissue sections by Ginzler and Fox in 1940.[7] The material has been shown to be depolymerized desoxyribosenucleic acid; cells which ingest it become "L.E." cells.[9] The presence of "hematoxylin" bodies is not pathognomonic, since they occur also in scleroderma and in hyperglobulinemia, but it is suggestive; on this finding, tests on both peripheral blood and bone marrow aspirate must be repeated.

Figure 2.—Amorphous "hematoxylin" body in bone marrow "L.E." preparation (× 1700).

Rosettes are clusters of polymorphonuclear leukocytes surrounding a "hematoxylin" body (Figure 3). The finding of a typical rosette is highly suggestive and an indication for further tests but is not diagnostic. The pseudorosette, surrounding a clump of

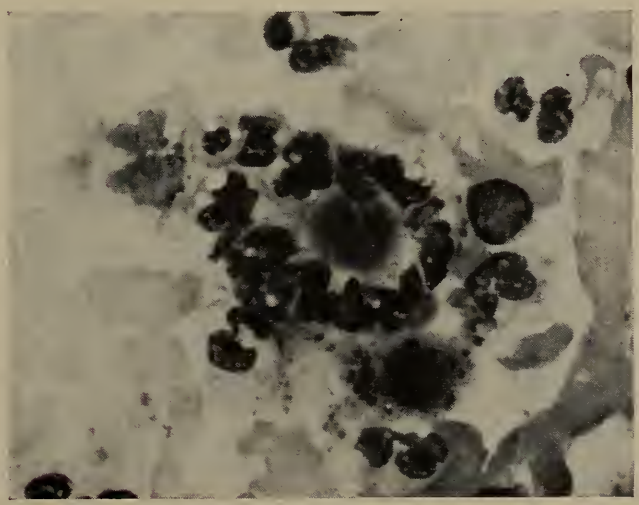

Figure 3.—Typical rosette of leukocytes about mass of "hematoxylin" staining material. Peripheral blood "L.E." preparation (× 825).

TABLE 1.—*First system involved as determined by history in 62 cases of lupus erythematosus.*

First System	No. of Cases	Per Cent
Arthritis	21	34.0
Butterfly area eruption	10	16.1
Eruptions on other parts of the body	7	11.3
Raynaud's phenomenon	5	8.1
Hemolytic anemia	4	6.5
Pleurisy	3	4.8
Positive reaction to serological test for syphilis	2	3.2
Discoid lupus	2	3.2
Pericarditis	2	3.2
Pleural effusion	2	3.2
Fever	1	1.6
Weight loss	1	1.6
Renal involvement	1	1.6
Pulmonary	1	1.6
Gastrointestinal tract	1	1.6
Epilepsy	1	1.6

TABLE 2.—*Chief complaint on admission of patients in whom systemic lupus erythematosus was diagnosed.*

Complaint	No. of Cases	Per Cent
Arthritis	18	29.0
Eruption on the butterfly area	10	16.1
Eruptions on other parts of the body	7	11.3
Shortness of breath	6	9.7
Fever	5	8.1
Abdominal pain	4	6.5
Pleurisy	3	4.8
Lethargy	2	3.2
Positive serological test for syphilis	1	1.6
Discoid lupus	1	1.6
Raynaud's phenomenon	1	1.6
Pericarditis	1	1.6
Tarry stools	1	1.6
Vomiting	1	1.6
Sore throat	1	1.6
Anorexia	1	1.6
Swelling of ankles	1	1.6
Weight loss	1	1.6

platelets rather than a "hematoxylin" body, is not as significant.

The only truly positive finding is the typical "L.E." cell (Figure 4). The cell is usually a neutrophilic polymorphonuclear leukocyte; it contains a purple-staining, smoky homogeneous mass of material which is so large that it pushes the nucleus to one side of the cell. As was previously noted, the absorbed material is chemically the same as that in the "hematoxylin" body, but when absorbed it may stain more lightly, varying from pale blue to dense purple. The inclusion may be only a fraction of the size of a single lobe of polymorphonuclear leukocyte or may be as large as two leukocytes, and occasionally there may be more than one inclusion in a cell. The ingested material is always homogeneous in appearance and can be differentiated from the "tart" cell, with which it is often confused, by the absence of any chromatin structure in the inclusion. The finding of two typical "L.E." cells is considered positive and the test is usually repeated for verification.

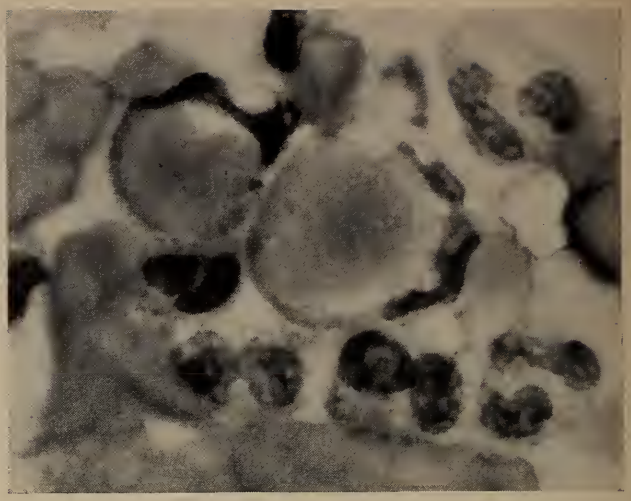

Figure 4.—Two typical "L.E." cells. Peripheral blood "L.E." preparation (× 1700).

Analysis of Clinical Features

During the past three years 80 patients with lupus erythematosus have been treated at the Los Angeles County General Hospital. This analysis covers the first 62 cases.[3] Of the 62 patients, 55 (88.7 per cent) were females. The ages ranged from 2 to 67 years, the median age being 26.6 years and the mean 27.5 years. The racial distribution was similar to that for all patients in the hospital—29 whites (46.7 per cent), 18 Mexicans (29.0 per cent), 12 Negroes (19.3 per cent) and 3 Japanese (4.8 per cent).

Thirty-seven patients were interviewed in detail for the history of their symptoms. A history of loss of hair and of Raynaud's phenomenon was elicited far more often among those who were specifically questioned than among those who were not; in Table 3, which shows the incidence of abnormalities, the disparity is indicated. Spontaneous remissions are very common in lupus erythematosus; a remission of 23 years has been reported.[1] Of the 37 patients interviewed, 16 (43.3 per cent) reported having had remission before admission to the hospital, while of the other 25 only 8 (32.0 per cent) reported remission. A total of 12 patients (19.3 per cent) reported having many spontaneous remissions.

Table 1 indicates the frequency with which the disease was first manifested in certain systems and Table 2 indicates the frequency of certain symptoms as the chief complaint on admittance. It will be noted that arthritis was the first symptom of the disease in 34 per cent of the cases and the chief complaint on admittance in 29 cases. As arthritis due to lupus erythematosus is indistinguishable from typical rheumatoid arthritis, except by the cell test, the test should be done in all cases of arthritis. The proportion of cases in which eruption of the butterfly area was the first symptom is equal to the proportion in which it was the chief complaint on admission; the

same is true of eruption on other parts of the body. The wide variety of other symptoms listed in Tables 1 and 2 indicates the protean nature of the disease.

Several points brought out in Table 3 are worthy of additional comment: Ninety per cent of the patients had arthritis at some time and 30.6 per cent had some definite rheumatoid deformity—a proportion at variance with previous observations. In 84 per cent of the cases there were cutaneous lesions of some sort, and in 69.4 these were on the face; hyperpigmentation at the site of these lesions was observed in 16.1 per cent of cases. Alopecia, usually partial, had occurred at one time or another in 70 per cent of the patients specifically questioned about it. Urinary abnormalities occurred in only 56.2 per cent of cases.

As to laboratory findings (Table 3), it is remarkable that leukopenia, as indicated by the presence of fewer than 4,500 leukocytes per cu. mm., was observed in only 68 per cent of the cases although dozens of counts were made in some cases. The fact that "L.E." cells were found in only 68 per cent of the patients tested emphasizes the fact that failure to find these cells does not rule out the possibility of lupus erythematosus. "L.E." cells were observed in 86.6 per cent of patients with hyperglobulinemia due to lupus erythematosus and in 87.5 per cent of those in whom the disease caused a falsely positive reaction to serologic tests for syphilis.

Treatment

With early diagnosis and adequate therapy, the lives of many patients may be pleasurably prolonged by the use of corticotropin (ACTH) and cortisone.[6] One patient, a 19-year-old Mexican girl, who was comatose and having frequent convulsions from systemic lupus erythematosus and who had severe rash on the face and ulcerative necrotic lesions of the hand, was vigorously treated. Within a few weeks she recovered dramatically and the rash and ulcerative lesions cleared. Eighteen months later she was ambulatory and working while receiving maintenance doses of cortisone.

The following case report illustrates the protracted course which the illness may follow:

An 11-year-old white girl had had intermittent aching of joints since the age of three years. Periods of low fever had been noted since shortly after birth. At the age of three years there was intermittent arthralgia in the knees, and at five years there were pains in the hands and the major joints, with many remissions of several months. The patient was studied by a number of physicians but no definite diagnosis was made. When she was eight and a half years old albuminuria was observed and reaction to a Kahn test was falsely positive. (Positive reaction is still obtained on Kahn test.) When she was ten and a half years old pink spots appeared on the cheeks and in the course of the next two months, after much exposure to the sun, a typical butterfly eruption developed. Fever began, rising to 104° F., and the pains in the joints were exacerbated but there was no rheumatoid deformity. The patient was hos-

TABLE 3.—*Incidence of abnormal changes in 62 cases of lupus erythematosus.*

	No. Patients	Per Cent
Signs of Catabolism		
Fever	60	97.0
Weight loss	51	82.0
Connective Tissue Lesions		
Arthritis	56	90.0
Definite rheumatoid deformity	19	30.6
Pericarditis	27	43.5
Myocarditis	11	17.7
Heart murmurs (systolic)	26	42.0
Pleurisy	37	59.5
Pleural effusion	34	55.0
Ascites	15	24.2
Vascular Lesions		
Skin		
Skin lesions of all types (total)	52	84.0
Butterfly area lesions (both classic and atypical)	43	69.4
Photosensitivity of rash	25	40.3
Hyperpigmentation	10	16.1
Mucous membrane lesions	7	11.2
Loss of hair—over-all group	32	51.5
Interviewed group (37)	26	70.0
Non-interviewed group (25)	6	24.0
Central Nervous System		
Convulsions due to lupus	19	30.6
Convulsions due to therapy	3	4.8
Psychosis	15	29.0
Chronic nervous system damage	11	17.7
Fundic lesions	20	32.3
Kidney		
Urinary abnormalities	35	56.2
Gastrointestinal tract		
Nausea	22	35.5
Vomiting	25	40.3
Diarrhea	12	21.0
Abdominal pain	23	37.2
Adenopathy	26	42.0
Splenomegaly	5	8.1
Hepatomegaly	21	34.0
Raynaud's phenomenon—over-all group	16	25.8
Interviewed group (37)	13	35.0
Non-interviewed group (25)	3	12.0
Hematologic Changes		
Leukopenia (one count below 4500)	42	68.0
Anemia (below 11 grams)	48	77.5
Thrombocytopenia (marked)	6	9.7
Positive reaction to serological test for syphilis	19	32.6
"L.E." cells (test made in 60 cases)	41	68.0
Hyperglobulinemia (over 3.8 grams per 100 cc.)		
"L.E." cells with hyperglobulinemia (of 15)	13	86.6
"L.E." cells with false-positive serological reaction for syphilis (16 cases)	14	87.5
Other Changes		
Electrocardiographic changes (marked)	23	37.0
Jaundice	7	11.3
Skin biopsy positive (performed in 23 cases)	12	52.3
Pleocytosis	4	6.4

pitalized and "L.E." cells were observed in the blood. Hemolytic anemia, leukopenia and nephropathy were found. The disease responded dramatically to hormonal therapy.

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TV Guide Takes Medicine's Viewpoint

A RECENT *TV Guide* magazine editorial tore into the CBS-TV Strike It Rich programs and upheld the viewpoint long held by the medical profession.

The editorial started out by saying:

"It must be a cinch to write for the *Daily Worker, Pravda* and other communist sheets as long as TV press agents dish out publicity releases like this one:

" 'Even though she failed to win the top cash prize on the CBS-TV Strike It Rich program, Mrs. ——, of Philadelphia, "struck it rich". . . when she appeared as a recent contestant. In desperate need of medical aid, Mrs. —— won $115 toward it, but through the show's heart line telephone, she received an additional $100, plus free medical treatment for as long as she may need it.' "

Then the magazine's editorial said:

"Can't you just hear the red propagandists citing that as proof that the poor in America must bare their misery on television shows in the hope of winning medical treatment?

"The fact is that the poor in America receive medical care as good as, if not better than, anyone else. Leading doctors give unstintingly of their time, and hospitals and clinics of their facilities, so that those who require treatment and can't afford it can be helped—without charge. No one, especially in a great medical center such as Philadelphia, has to be 'in desperate need of medical aid.' No one has to appear on television to ask for such aid.

"In all fairness to Strike It Rich, the program did not originate the idea of using human misery as a form of entertainment. Nero, for one, had a great time with it. If, today, a television show can thrive on misery, and if that's what viewers want to see, the sponsors of the show have good reason to keep it on the air.

"But we can, and do, object strenuously to stupid publicity material that presents a false picture of our way of life in order to grab off a few lines of newspaper or magazine space."

—A.M.A. Secretary's Letter

Modern Management of Tuberculosis

The Public Health Implications of Recent Advances

C. GERALD SCARBOROUGH, M.D., San Jose

• *Modern treatment for tuberculosis has greatly increased the problem of preventing spread of infection. BCG vaccination, for instance, would cause all persons to react to tuberculin test so that the possibility of tuberculosis could never be ruled out by this means. Streptomycin and more recently developed drugs may sterilize sputum so that diagnosis cannot be confirmed for some time after use of such drugs; when by use of these drugs the disease has been confined to caseous encapsulations, later breakdown of the encapsulations may release strains of bacilli resistant to the drugs both in the patient and in others infected with them. The temporary sterilization of sputum, coupled with the euphoria resulting in part from abrupt remission of the toxic state, may lead to premature discharge of patients from sanatoria and further spread of tuberculosis. Both the public and the profession must be impressed with these facts.*

Far more profitable than minifilm surveys of normal populations are routine x-ray examination of all patients admitted to hospitals (by which two to five times as many cases have been found) and follow-up of persons who have had contact with tuberculosis patients (thirteen times as many cases found).

A study being conducted by the California Tuberculosis and Health Association indicates that in many counties neither the number of x-rays made in public surveys nor the number of cases found is known or even to be estimated from existing records.

Because of reduction in deaths due to tuberculosis some public officials are reluctant to spend for further treatment facilities. As the actual number of cases is increasing in many areas, however, expenditures will have to be increased.

GREAT FORWARD STRIDES have been taken in the treatment of tuberculosis in the past few years, and the death rate from the disease has continued to decline. The advances themselves, however, have created several public health problems:

BCG:

Prevention is always better than cure. No preventive has been really practicable until recently when vaccination against tuberculosis began to be used more generally. It would be unprofitable in this presentation to engage in the controversy about BCG, but two of the public health problems involved may be briefly considered:

1. The immunity conveyed by BCG vaccination is neither complete nor permanent. Overwhelming exposure may cause progressive disease despite successful BCG vaccination, as also may exposure occurring after the temporary immunity has waned. A general program of BCG vaccination by health authorities would be a problem of staggering proportions; the necessary periodic retesting with tuberculin and revaccinating would be time-consuming and costly.

2. Universal vaccination with BCG would make all persons reactive to tuberculin and deprive health officials and physicians of a most valuable sensitivity exclusion test in diagnosing obscure cases of illness and checking persons who have been in contact with tuberculosis. Epidemiologically speaking, therefore, universal BCG vaccination has its drawbacks, while immunologically speaking there is also something to be desired. With further research an improved preventive may be developed which may then become a prime public health weapon of the future.

Chemotherapy:

Modern tuberculosis chemotherapy has brought many problems in its wake. With many of the drugs bacterial resistance develops in the tubercle bacillus if the drug is given alone for too long. Use of powerful antibiotics without adequate indications complicates the problem of accurate diagnosis. For example, even small amounts of streptomycin given as part of a "shotgun antibiotic prescription" for "unresolved pneumonia" or "virus pneumonia" may temporarily sterilize the sputum with the result that

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tubercle bacilli cannot be demonstrated even by culture or animal inoculation. The decision must then be to treat the case on a presumptive basis or else to observe the patient until the disease progresses far enough for bacilli again to be detected. Indiscriminate use of antituberculosis drugs without adequate prior diagnosis, therefore, is a major public health problem when tuberculosis is thus "masked."

Furthermore, in persons treated indiscriminately with streptomycin before tuberculosis is diagnosed the organism may lose early the streptomycin sensitivity which may be sorely needed before cure is complete. Meantime—and this is the important fact from the public health point of view—the patients are allowed to circulate among family, friends and business associates for further days, weeks or months with no precautions being taken to prevent spread of infection.

It should be pointed out here also, however, that partially or completely resistant bacterial strains occur under the most ideal circumstances with the most carefully devised chemotherapeutic regimens. This means that even in properly treated cases in a sanatorium bacterial resistance may be an inevitable undesirable effect of active therapy. After such adequate therapy, although no disease organisms may be detected by any test, there may still be resistant bacilli in encapsulated caseous masses in the lungs. Should these encapsulations break down at a later date—and this is a continued hazard—the bacilli in the sputum will then be streptomycin-resistant, an added handicap to any person infected with them.

Fortunately, research is continuing all over the world, and it is likely that other drugs will be available in the future for such infections. In the meantime, however, persons harboring drug-resistant strains of bacilli should be kept under special observation to prevent dissemination of bacilli. On resection of the lung in patients who have had relapse after long-continued chemotherapy with streptomycin and para-aminosalicylic acid (PAS) bacteria in the excised lesions stain like tubercle bacilli but do not grow on culture or animal inoculation. Are these bacilli really dead? No one is sure. Clinicians and public health officials, however, cannot afford to consider them dead and give up careful follow-up of these patients.

This discussion has applied primarily to the combination of streptomycin and PAS. The more recently announced drugs, isoniazid (Rimifon,® Nydrazid®) and iproniazid (Marsilid®) have been conclusively shown to be highly tuberculostatic; resistance to them does develop, but disease toxicity is lessened by their action, and toxic side-reactions are few. Development of resistant strains can be postponed somewhat by combining these drugs with streptomycin or PAS or both.

The important public health effect of these drugs is that a patient's sputum can be partially sterilized by one of them while a cavity is still observable by x-ray. The feeling of euphoria which follows remission of toxicity was demonstrated in pictures in one of our popular magazines a year ago showing patients dancing in the halls of a large eastern sanatorium. This feeling of well-being makes it more difficult to prevent departure from sanatoria against medical advice and gives rise to a public health problem of the first water because patients who leave in such circumstances are not cured at all; the bacilli have only temporarily been suppressed.

The public health implications are clear. Better criteria than "negative sputum" must be insisted upon for the discharge into the community of a tuberculous patient. It may be necessary to modify accepted concepts of what can be regarded as "negative sputum," perhaps by qualifying all sputum reports with some such remarks as "under chemotherapy" or "three months after chemotherapy." Closer observation of the bacteriological status of a patient must be provided after chemotherapy to prevent relapse from occurring and endangering the patient and others.

How can health officers be sure that this close surveillance will be maintained by the physician? Tuberculosis case registers themselves are one means of checking up. If officials demand reports on the sputum of recently discharged patients more frequently and insist on knowing which have received chemotherapy, the data from the case register will furnish the necessary facts as to which patient needs closer follow-up.

Education:

Health education is a fertile field which must be exploited to its fullest extent by every health jurisdiction.

The facts that tuberculosis
is caused by a germ,
is contagious,
is not inherited,
is a deceptive disease, and
is curable

are all basic and can be understood even in the lower grades in school.

In the higher grades and in general public audiences, health educators can point out the absolute necessity for rest in bed for tuberculosis and for following the doctor's advice about sanatorium care, about collapse and about chemotherapy. It can be driven home over and over that the use of antituberculosis drugs does not permit ambulation, for

drugs are only adjunctive therapy. An intensified basic educational campaign along these lines will in the end prove most profitable.

But how to educate the physicians? This is definitely more difficult but not impossible. Health officers should seek to be heard by the medical education committees of the medical societies and specialty societies. For example, the medical education committee of the California Trudeau Society attempts to disseminate pertinent medical information among physicians by means of a panel of qualified chest specialists to talk at meetings of medical societies, the American Academy of General Practitioners, and local tuberculosis associations. The point of view of the health authorities would be welcome at the committee's meetings. Incidentally, health officers are eligible for membership in the California Trudeau Society. Why not join?

Case Finding:

Modern management of tuberculosis means the use of all techniques and knowledge available in the fight for the total eradication of the disease. Logically, then, prevention must be the first aim; but physicians must not forget to do everything possible to treat the unfortunate sick. Prevention is especially difficult in tuberculosis because of the large number of unknown cases by which the disease is continually spread. Modern management, therefore, must include attempts to seek out these unknown cases.

Present case-finding techniques include screening of all patients in doctors' offices, mass radiographic surveys of many groups, and, far more profitable, the following up of contacts with known active cases of the disease. It has recently been shown that the proportion of cases found to the number of persons examined is at least 13 to 14 times as great in this last method as in taking minifilms among the general population.

A more recent effort has been the routine chest x-raying of all patients admitted to general hospitals. Over 15,000,000 persons enter general hospitals each year in the United States; it is logical to suppose that some of them have unrecognized tuberculosis masquerading as some other disease and that since they are sick, tuberculosis if present is in a more advanced and communicable stage. Besides, many have tuberculosis in addition to some other illness. Routine x-raying on all hospital admissions actually has been two to five times more successful for finding active cases than x-raying the general, supposedly healthy population. Private general hospitals are not immune, and patients entering them should be x-rayed just as are those of publicly operated hospitals. The success of a program like this depends on thoroughness, because if large numbers of patients are not x-rayed many cases will be missed. The administrative details must be worked out minutely and conscientiously by each hospital. Health departments cannot afford to miss the opportunity to encourage, cooperate with and participate in this type of program.

This hospital x-raying program has been discussed as though all that is necessary is to take the films; as though the diagnosis is then automatically made. This, of course, is nonsense. A diagnosis of chest disease, as all physicians know, cannot be made from a minifilm alone, nor for that matter from a full-size chest film. All the suspect cases must be carefully sifted medically to determine the cause of the x-ray findings—tuberculosis, cancer, or whatever it may be. This process of follow-up is of prime interest to the health department.

Legal responsibility for seeing that suspect cases are followed to definite diagnosis rests on the health authorities, since under California law, corporations and associations are forbidden to practice medicine. Data on a suspected case found by minifilm survey properly should be given directly to the health department as well as to the designated physician.

It must be instantly obvious that there is no great advantage in having a long list of suspected cases and no proven ones. As a matter of cold fact, the only list which is of *any* real value as a result of any tuberculosis survey is a list of the active, communicable cases. Follow-up is equally if not more important than the taking of x-ray films. At least as much energy and money should be spent on this phase of endeavor, and here is where the whole system of case-finding, as now operated, so often fails.

Survey on Surveys:

In the past year the California Tuberculosis and Health Association through its case-finding committee has been conducting a survey in the state to see how the money being spent for case-finding by health departments, tuberculosis associations and medical societies is being used. Budget allocations for this purpose gathered from the state and all local tuberculosis associations alone, not taking into account health department budgets, amounted to a half million dollars—big business in any man's language. The intent of the survey was to learn whether money—no matter by what agency spent—was being used wisely if put primarily into case-finding by minifilm survey.

The trend of facts that have already come out of this statewide survey is startling but can be outlined here even though the survey is as yet incomplete. First of all, the Tuberculosis Association investigators ran into a disconcerting dearth of figures. One health official in a metropolitan area not only did not know the number of films taken the previous year but was unable to find the number in any records in

the department, nor had he any idea whether any actual cases of tuberculosis had been found by the expenditure of whatever funds were expended. This particular health department was not unique; many tuberculosis associations had no real data either. The lack of figures was so prevalent that in two-thirds of the counties studied records were insufficient to allow even a casual estimate of the situation. In only eight counties were the figures complete enough for a true picture to be obtained.

Furthermore, when costs of case-finding programs were studied in relation to the number of cases found, the lack of data or the incomparability of the figures made even cost *estimates* invalid.

Now a program is not worth while unless it is producing tangible results (i.e., actual cases found) at a reasonable cost. The State Tuberculosis Association survey so far has brought out that in only a third of the counties studied is there a record of either the number of cases found or the amount of money spent to find them. Are health departments, tuberculosis associations and medical societies getting their money's worth from present case finding? We haven't sufficient facts to tell.

A pilot study in volunteer counties to collect all the appropriate data over a period of time will be attempted in the near future, with, it is hoped, the complete cooperation of official and voluntary organizations in the selected counties. Perhaps, after the collection of these data, it will be concluded that x-ray surveys as at present operated are unsound and that some other method of case-finding will be more productive. The State Tuberculosis Association hopes to publish its conclusions.

Another basic problem, however, is how to get better medical follow-up of all suspects. Naturally the physician must do the actual work, whether he be private practitioner or clinic physician, but the responsibility for seeing that that work is done, and done adequately, lies in the official health agency. It will take close cooperation with the practicing medical profession. It will take medical education to point out what an adequate medical follow-up is. It will also take added public health nurses and clerical help, and it certainly will take more health funds.

Finance:

There is a tendency in some official quarters, including Congress, to decrease the amount of money to be appropriated for tuberculosis control and for building added tuberculosis hospital beds. The thesis among unenlightened officials seems to be that tuberculosis is licked now, so why spend any more funds on it? These officials argue that we now have at hand potent drugs which will eliminate the disease in the near future and thereby decrease the need for funds. In the present state of our knowledge, this simply isn't true. All the standard medical and surgical procedures *plus* the drugs are still necessary and will continue to be until better agents are available.

It is true, as all know, that the number of deaths has been greatly reduced, but this is not true of the number of cases. Morbidity has increased in many communities. This should mean more funds and more tuberculosis beds, not fewer.

Complete prevention of death due to tuberculosis is one goal, but another necessary goal is finding and curing the tuberculous sick who at present are the real problem. The dead do not spread infection; the sick do. As long as the incidence of disease is high, funds must not be reduced; rather they must be increased and the efforts to make headway redoubled.

235 East Santa Clara Street.

Repair of Tendons in the Hand

JAMES N. WILSON, M.D., Los Angeles

• *The physiologic processes by which tendons of the hand heal after injury differ from one part of the hand to another.*

Although definitive operation immediately after injury is advisable in many cases to avoid infection, factors other than infection may be more important and dictate delay.

While early exercise to mobilize the tendon soon after repair would seem logical, actually the process of healing is such that during the third week the tendon is spontaneously freed from adherence to surrounding tissue. Motion earlier than that causes irritation at the point of suture of the two ends of the tendon and increases scar. After completion of the healing process, motion serves to increase the strength of the new tendon fibrils.

SUCCESSFUL SURGICAL REPAIR of tendons depends in large part on understanding the physiological processes by which tendons heal and on correlating this knowledge with the specific problem of repair that the surgeon faces at the operating table.

In the hand, tendons are found in two different anatomical environments. In the fingers and thumb the flexor tendons glide within synovial sheaths. The blood supply to them is precarious and is carried through a mesotenon similar to the mesentery of the intestine. When a tendon is cut within the sheath, muscular pull draws the ends apart. Since there is little supply of blood to the tendon and contiguous sheath, very little inflammatory fibroplastic reaction occurs. At operation the ends of the tendon are found to be smooth and rounded off and not adherent to the surrounding tissue. Frequently extravascular unclotted blood is observed within the sheath.

In the remainder of the hand and in the forearm the situation is considerably different. There the tendons lie within loose, filmy areolar tissue called paratenon. The blood supply there is abundant and comes from many different directions. When a tendon is cut within paratenon, nature attempts to bridge the gap by proliferation at the cut ends. The tendon fibrils rapidly grow out like pseudopodia and fuse with the nearest surrounding tissue. When such a tendon is repaired, accurate end-to-end apposition of the cut surfaces must be achieved. Overlapping ends will result, as Bunnell[1] put it, in "unsatisfied" tendon fibers. The unsatisfied ends will adhere to the surrounding tissue and thus act as a check-rein to the gliding motion of the tendon.

Frequently raised is the apparently rational conjecture, "Inasmuch as a tendon is a gliding structure, shouldn't motion be started soon after injury to keep the tendon from becoming adherent?" This at first sounds reasonable. However, nature has provided a solution for this problem, as has been found in studying the process of tendon repair.

Immediately following repair of a tendon, the strength at the juncture is only as great as the knot that holds the two ends together. During the following several days the union becomes weaker due to the hyperemia and softening that occur. In the first week the ends of the tendon are joined by soft clot containing fibroblasts and capillaries and there is no bridging of the gap by new tendon fibers. In the second week the tendon fibers proliferate and become interlaced within the fibers of the opposite side, but the juncture is without material strength. During this period the tendon is stuck in a mass of soft tendon callus which incorporates not only the tendon but the surrounding structures which contribute to the healing process. During the third week a process of selective absorption of the surrounding scar occurs in such a way as to free the tendon from the tissue to which it was previously adherent.

It is at this period, between the fifteenth and twenty-first days, when nature is carrying out tenolysis, that active but protected motion should be started. It has been shown experimentally that if motion is started before this period, the suture line becomes boggy and edematous in response to the mechanical irritation. Following this period, active motion provides a stimulus to the increasing strength of the new tendon fibrils.

DETERMINING FACTORS IN PRIMARY REPAIR

Since infection is probably the complication that most often interferes with attaining good results in tendon repair, the time factor is extremely important. The so-called "golden period" of six to eight hours between the time of injury and repair has

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probably been appreciably extended by the new antibacterial drugs. The degree of contamination of the wound may cause the surgeon to shorten or extend the time period, the decision depending upon the probability for the development of infection in the particular case in question. Other factors come into play along with the time element, however. The amount of accompanying trauma to tissue exclusive of the damage to the tendon has been shown to have a direct bearing on the end results. Extensive trauma necessitates prolonged immobilization, causes increased edema and excessive formation of scar tissue. Frequently nerves are damaged. This results in trophic disturbances with consequent impairment of tissue nutrition and delay in healing. Definitive repair of a tendon should not be carried out if fractures of any great magnitude are associated with the damage to the tendon. The fracture requires immobilization for eight to ten weeks. A damaged tendon kept immobile for so long a time would become firmly adherent in cicatrix.

Operation should be done only in a hospital and preferably with the patient under general anesthesia. In any procedure on the hand, the operative field should be kept bloodless. This can be done by the use of a pneumatic tourniquet. A simple blood pressure cuff inflated to 300 millimeters of mercury is adequate for the purpose. The extremity may thus be rendered ischemic for one and one-half hours without ill effect. The lighting and stability of the operative field should be such that the surgeon can perform the frequently meticulous technique that is requisite to achieve good end results.

Primary repairs in certain areas in the hand have always been associated with poor results. Even with the great advances that have recently taken place in surgery of the hand, there seems to be as yet no solution to the problem of primary repair of flexor tendons between the central crease of the palm and the middle flexion crease of the fingers. In event of damage to tendons there, only closure of the wound should be carried out at first and all efforts made to secure wound healing at the earliest possible time. A tendon graft of the profundus tendon only from the tip of the finger to the palm can then be undertaken as a secondary reconstructive procedure.

TECHNIQUE OF REPAIR

A leading orthopedist recently said that the best way to secure fixation of fractures is "to wish the ends together and hold them by moral suasion until healing takes place." The same may be said of tendons. The ideal suture is one that could be inserted without trauma, would attain perfect apposition of the ends of the tendon, would cause no foreign body reaction, and could be left in place indefinitely. Bunnell's techniques with the use of stainless steel wire would seem to come closest to the ideal.

The kind of suture varies with the location of the injury. On the flexor surface, strength of repair is important and the interwoven stitch is commonly used. It is important not to bury wire in tactile areas, such as those in the fingers, for if there is not enough overlying soft tissue the wire knot causes pain and tenderness. In deeper areas like the palm and wrist, wire may be buried with impunity. On the extensor surface, tension suture is less important and coaptation of the ends of the tendon with removable figure-of-eight suture is usually sufficient. The tension at the suture line is overcome by positioning of the adjacent joints, which are immobilized by plaster until healing takes place.

For a more complete description of the technique and rationale of tendon suture, the reader is referred to Bunnell's excellent book.

1401 South Hope Street.

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Aortography

A Discussion of Technique and Complications

A. JUSTIN WILLIAMS, M.D., TOM M. FULLENLOVE, M.D., and JOHN R. BRYAN, M.D., San Francisco

• *Aortography is valuable in the demonstration of vascular blocks, in determining the exact location of the disease and as a guide to surgeons if operation is done. Since complications may develop, indications for the procedure should be carefully considered.*

One death and 15 nonfatal complications occurred in 594 cases in which the authors made angiographic examinations.

A technique is described which takes a minimum of time.

Renaldo Dos Santos, a Portuguese urologist, reported in 1929 before the Surgical Society of Paris his technique of translumbar aortography and clinical experience of visualizing the abdominal aorta in 300 cases, without accident. Since then over 3,000 cases have been reported.[6] In this country, Nelson[13] and then Doss[4] were the first to use the method routinely for the demonstration of renal lesions. Wagner, Price, and Swenson[14, 15, 16] added vascular lesions to the renal group and used it whenever other methods failed to reveal a lesion.

The diagnostic value of the procedure is that it shows the exact location and extent of vascular obstruction. It gives a preview of what will be encountered at operation. The amount of collateral circulation and the type of aortic disease are shown (see Figures 1, 2 and 3).

After reporting the first 300 cases without accident, Dos Santos later reported 1,500 cases, with bleeding in one. Deterling[3] reported 100 aortograms without mortality in a recent review of experiences with this method at the Presbyterian Hospital in New York City. Wagner, Price and Swenson reported one death in a series of 50 cases. Nelson reported no fatalities in more than 100 cases. Table 1 lists the number and kinds of angiographic examinations done by the authors from 1947 to 1953. The complications are listed in Table 2. The one death in the 594 cases was caused by a coronary infarct due to fall in the blood pressure from the procedure. In one of the cases in which injection was made directly into the renal artery the kidney eventually atrophied. The procedure should not be done if the patient has severe liver or kidney damage or has allergic sensitivity to iodine. Fifty cubic centimeters of 70 per cent Diodrast® was injected in the majority of the cases in the present series and was the medium in use in all the cases in which complications occurred. Seventy per cent Urokon® has been used in the most recent cases, but the series is at present too small to permit evaluation of this material.

Castellanos and Pereiras[2] introduced the retrograde method of visualizing the thoracic and abdominal aorta in 1937 and Farinas[7] also adopted this technique, abandoning the translumbar method of Dos Santos. However, in the authors' experience[8, 9] and in the experience of others[4, 5, 6] translumbar aortography for the abdominal aorta is safer and simpler than the retrograde carotid method. The latter is used to best advantage in the visualization of the thoracic aorta and its branches.

With the patient under light general anesthesia a direct translumbar aortic puncture is done with

TABLE 1.—*Angiography of all types done in Franklin Hospital, Department of Radiology, 1947-1953*

Aortography	113
Femoral Arteriography	243
Brachial Arteriography	42
Retrograde Carotid Arteriography	32
Cerebral Arteriography	88
Phlebography	54
Arterial Catheterization	22
Total number of cases	594

TABLE 2.—*Complications in 113 cases of translumbar aortography*

Complications	Fatal	Nonfatal
Cerebrovascular	0	1
Cardiovascular	1	1
Renovascular	0	3*
Enterovascular	0	0
Peripherovascular	0	0
Hemorrhage	0	0
Extravasation	0	10
Total	1	15

*Direct injection into renal artery in two cases, and lower nephron syndrome (possibly owing to sensitivity to iodine) in the other.

From the Department of Radiology, Franklin Hospital, San Francisco.

Presented before the Section on Radiology at the 82nd Annual Session of the California Medical Association, Los Angeles, May 24-28, 1953.

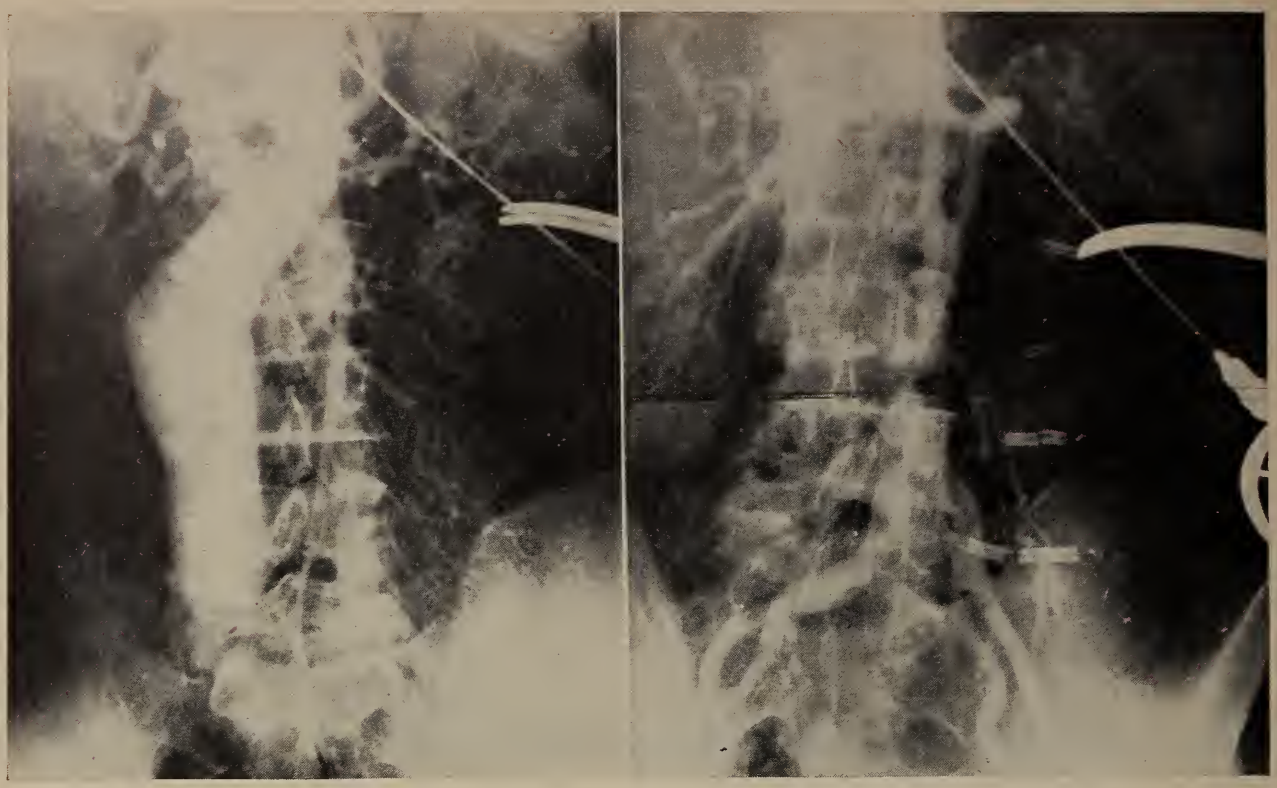

Figure 1.—The patient was a 54-year-old man with pulsating mass in abdomen to right of umbilicus of one year's duration. Pulses in the lower extremities were normal. The blood pressure was 150/110. Gastric resection for duodenal ulcer had been done two months before. An aortogram (left hand picture) on January 4, 1953, showed aneurysmal dilatation of the abdominal aorta. The renal and iliac arteries appeared normal. A resection of the aneurysm was done with end-to-end anastomosis of the splenic artery (following splenectomy) to the left common iliac artery, and anastomosis of the right common iliac artery to the left common iliac arteries. Postoperative aortogram (right-hand picture) on January 20, 1953, showed good function of the spleno-iliac artery anastomosis.

the needle angled cephalad to avoid the renal arteries. Some surgeons use one needle, others use two, but the desired effect is to get sufficient concentration of opaque material in the aorta so that it is visualized as it passes downward. The instant the injection is started, the switch on the arteriographic timer[12] is closed. The rapid cassette changer is then started and the time, after the beginning of the injection, is recorded on each film. The apparatus in use at present[9] is a gravity-fed magazine of cassettes forced through the apparatus and out into a bin lined with lead. A bar-plunger pushes the cassettes through and as it is pulled back into the loading position a microswitch makes the exposure. From six to eight films are taken in ten to fifteen seconds. It is important to know the peripheral vascular findings of the patient before the examination, since it is often necessary to vary the interval in the later films, particularly when there is a block or decreased flow. If there is no obstruction to the arterial flow, all films are made rapidly at 1- to 2-second intervals. In case of a block, the first two films are made at 1- to 2-second intervals and the following films are exposed at intervals of 2 to 5 seconds depending upon the severity of the block.

450 Sutter Street.

ADDENDUM

Since this paper was presented, additional experience has revealed that the injection of 25 to 30 cc. of Urokon is sufficient to give excellent aortograms. The reactions have been much less severe and less frequent.

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Figure 2.—Aortogram showing extensive aneurysmosis of the lower abdominal aorta, iliac and femoral arteries in a 60-year-old man with numbness of the right side of the body and cyanosis of both feet for five years. Operation was not done.

Figure 3.—Aortogram of a 56-year-old woman with a two-year history of acute and continuous low back pain. Impaired circulation in both lower extremities developed shortly after onset and the patient was unable to walk far. Note complete obstruction of the abdominal aorta immediately below the celiac axis. At operation a large occluded aneurysm was observed in the lower abdominal aorta. This was removed along with the spleen, and the splenic artery was anastomosed to the left common iliac artery. The patient was eventually discharged improved.

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Indications for Angiocardiography

GEORGE JACOBSON, M.D., and JOHN M. CLARK, M.D., Los Angeles

• *Angiocardiography is indicated in selected cases of heart disease in which a definite diagnosis cannot be made by ordinary methods or in which there is reasonable expectation that the information so obtained may influence the treatment of the patient. Whenever possible, angiocardiography should be done in conjunction with cardiac catheterization. The main indication for angiocardiography is cyanotic congenital heart disease; primarily those cases in which there is a right-to-left shunt. Angiocardiography is occasionally of value in diagnosis of other types of congenital heart disease and in acquired heart disease.*

RADIOLOGISTS long have been aware of the limitations of conventional radiography and fluoroscopy in the diagnosis of heart disease. Consequently, until recently, their interest in cardiac roentgenology has been limited. The more enthusiastic manner in which radiologists now approach the subject is due to the parallel development and popularization of angiocardiography and cardiac catheterization, along with the great advances made in cardiac surgery.

Angiocardiography is rapidly becoming a widely employed procedure and is being advocated for an increasing variety of conditions. Although the number of reported deaths due to angiocardiography has not been great, it must be recognized that a definite risk is entailed each time the examination is carried out. While angiocardiography has contributed greatly to the knowledge of cardiovascular anatomy, physiology, and pathology, it is the opinion of the authors that as a diagnostic procedure, as distinguished from clinical investigation, its use should be limited to cases in which there is a reasonable expectation that the information obtained may influence the treatment of the patient, or to cases in which a definitive diagnosis cannot be made by other means.

Congenital Heart Disease

It is most fortunate that, particularly in congenital heart disease, angiocardiography and cardiac catheterization are complementary procedures. With certain exceptions, which will be discussed, angiocardiography is suited best for the diagnosis of right-to-left shunts, and cardiac catheterization for left-to-right shunts. When it is feasible, however, cardiac catheterization should be carried out in each case before angiocardiography is performed. The hemodynamic data obtained frequently are essential to the proper interpretation of the angiocardiogram.

Right-to-Left Shunts

Cyanosis or diminished oxygen saturation of the peripheral arterial blood in the patient with congenital heart disease, who is not in congestive failure, is almost always due to a right-to-left intracardiac shunt. The exceptions are the occasional cases in which the decrease in arterial oxygen is caused by impaired respiratory function, or cases in which diminished cardiac output, as in pulmonary stenosis, results in excessive deoxygenation of the peripheral systemic circulation. The presence of a right-to-left shunt and the nature of the abnormality usually can be established by angiocardiography.

Dextroposition (overriding) of the aorta, which is always accompanied by a high interventricular septal defect, is a component part of the two commonest forms of cyanotic heart disease, tetralogy of Fallot and Eisenmenger's complex. In most instances these two conditions can be differentiated with a reasonable degree of certainty without resorting either to cardiac catheterization or angiocardiography. However, in many cases a clear distinction based on clinical evidence alone is not possible. A sufficient number of erroneous diagnoses has been made to warrant performing both of these procedures to establish as exact an anatomic and physiologic diagnosis as possible. The degree of pulmonary stenosis and right ventricular and/or pulmonary hypertension, the amount of left-to-right shunt flow through the interventricular septal defect, and the presence of other unsuspected left-to-right shunts can be determined only by catheterization. Angiocardiography is not only a more accurate means than catheterization for demonstrating the overriding aorta but also is more efficient for estimating the volume of the flow of blood from the right ventricle into the aorta. It also serves to visualize unsuspected right-to-left shunts (Figure 1) and is an aid in determining the availability of vessels for surgical anastomosis. All this information is of value

Presented before the Section on Radiology at the 82nd Annual Session of the California Medical Association, Los Angeles, May 24 to 28, 1953.

From the Department of Radiology, School of Medicine, University of Southern California, and Los Angeles County General Hospital.

Figure 1.—Tetralogy of Fallot with unsuspected right-to-left shunt through an interatrial septal defect.

in determining whether operation is indicated and, if it is, what procedure should be performed.

Pulmonary stenosis may be accompanied by cyanosis even in the absence of an overriding aorta. First, this may be due to additional congenital cardiac anomalies such as interauricular and interventricular septal defects which, in the presence of right auricular or right ventricular hypertension, permit a flow of blood from right to left. Second, patients with pure pulmonary stenosis may be mildly cyanotic as a result of pulmonary parenchymal or vascular changes or because cardiac output is reduced and an excessive amount of the available oxygen is extracted from the peripheral systemic circulation. As already indicated, right-to-left shunts are demonstrated best by angiocardiography.

In most cases pulmonary stenosis may be assumed from the clinical and radiographic findings. A definite diagnosis can be made only by cardiac catheterization. Angiocardiography rarely will show the actual stenotic area. Differentiation between infundibular and valvular stenosis is of considerable importance, for it will determine whether a vascular anastomosis or valvulotomy is to be attempted. Poststenotic dilation of the pulmonary artery is the most reliable indication that the stenosis is valvular. In most cases the poststenotic dilation is clearly visible

Figure 2.—Tricuspid stenosis. The size of the interatrial septal defect and the absence of filling of pulmonary artery are demonstrated.

on roentgenograms of the chest; in other instances it can be demonstrated only by angiocardiography.

Truncus arteriosus, one of the rarer forms of cyanotic congenital heart disease, must be differentiated from tetralogy of Fallot, with which it easily may be confused. As yet no surgical procedure has been devised that will benefit patients with this cardiac anomaly. Before a diagnosis of truncus arteriosus can be established, it must be shown that there is no functioning pulmonary artery. Angiocardiography is the only method of proving this with any degree of certainty.

Tricuspid stenosis or atresia can be diagnosed with considerable accuracy on clinical evidence alone. Although during cardiac catheterization the catheter may be passed through the accompanying interauricular septal defect, angiocardiography provides a more accurate conception of the size of the defect and of the flow through the shunt (Figure 2). Unless there is complete atresia, angiocardiography may permit visualization of the right ventricle and pulmonary artery. If an anastomotic operation is contemplated, knowledge of the size of the pulmonary artery and its main branches is of considerable importance to the surgeon.

Complete transposition of the great vessels rarely permits the patient to live more than one or two years. In most cases the diagnosis can be made by conventional clinical and radiographic means. Angiocardiography is indicated only as a confirmatory procedure or when the diagnosis is in doubt.

Trilocular and bilocular conditions are due to multiple cardiac defects which can occur in various combinations. The clinical and radiographic findings are usually bizarre and confusing, and depend on the particular defects present in a given case. Angiocardiography is the diagnostic procedure of greatest value in these cases since it may demonstrate the confluence of the abnormal chambers as well as the site of origin and the size of the great vessels.

Pulmonary arteriovenous fistula is almost always associated with a characteristic continuous pulmonary murmur and a lesion visible on a roentgenogram of the chest. Even though the diagnosis in these circumstances is practically certain, angiocardiography is indicated, before operation, not only for positive identification and localization but also to make sure unsuspected multiple lesions are not present. Occasionally a cyanotic patient is encountered who does not have congenital heart disease but does have a suspicious murmur without a visible pulmonary lesion. Particularly in such cases angiocardiography should be performed. Surgical exploration rarely is indicated unless the arteriovenous fistula can be demonstrated.

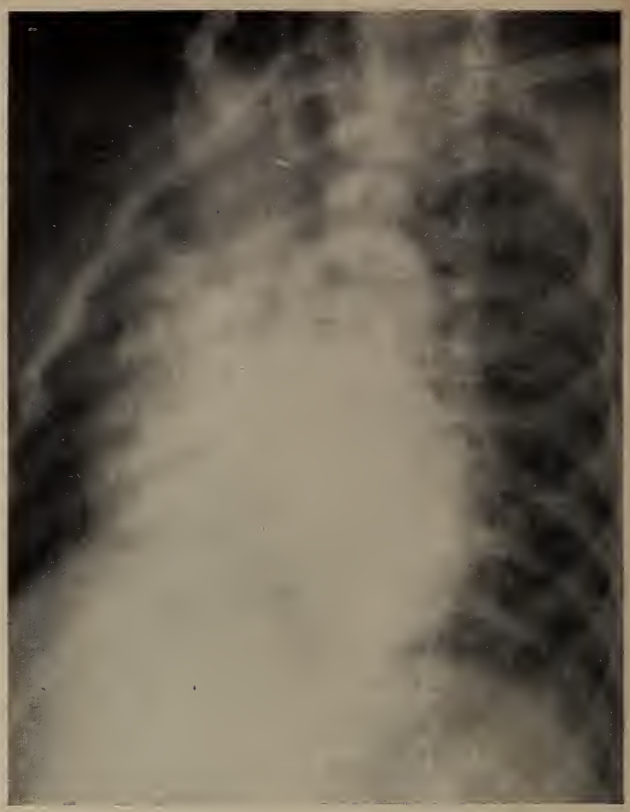


Figure 3.—Hypoplasia of aorta. Clinically the condition was indistinguishable from coarctation.

Figure 4.—Constrictive pericarditis. Obstruction demonstrated at the junction of the superior vena cava with the right atrium.

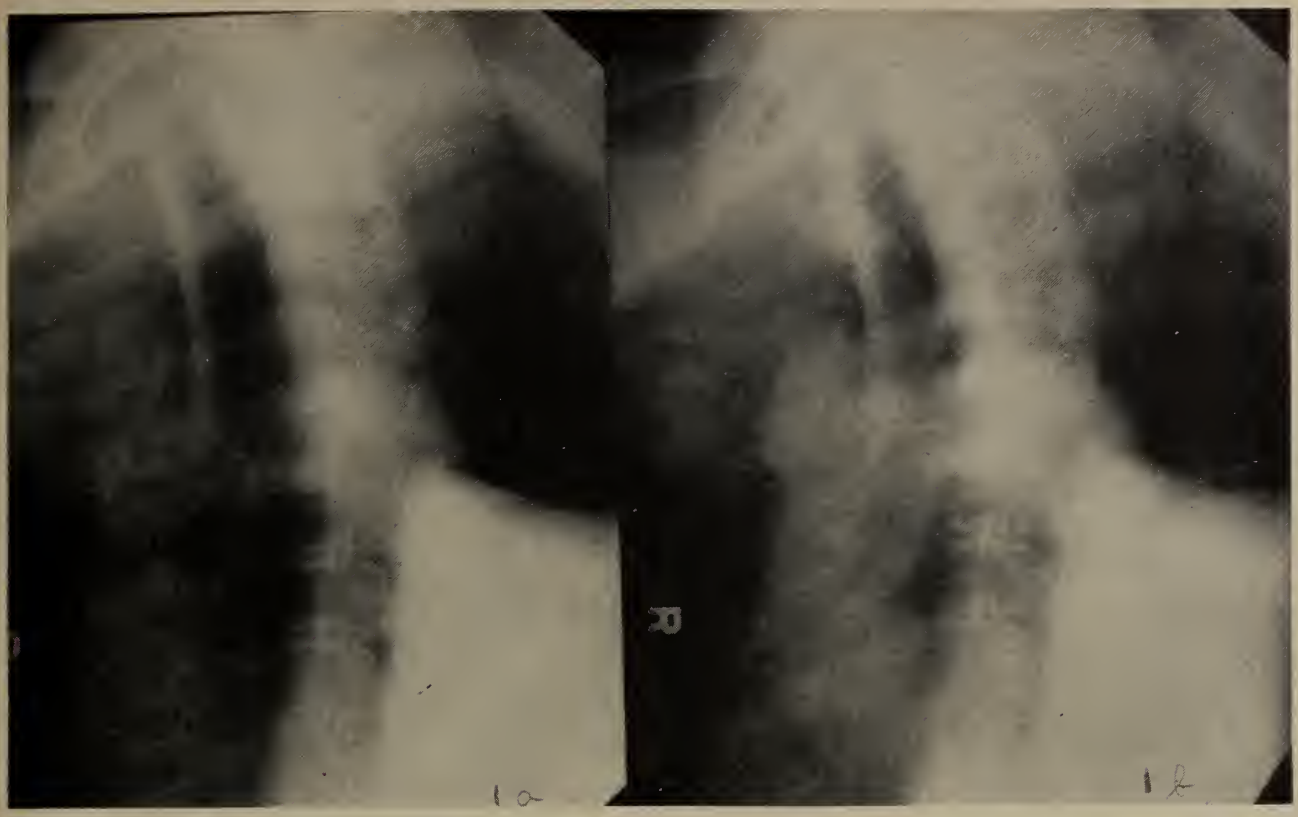


Figure 5.—Aneurysm of aorta differentiated from a solid tumor by angiocardiography.

Left-to-Right Shunts

Interatrial and interventricular septal defects, patent ductus arteriosus and transposed pulmonary veins are the cardiovascular anomalies which ordinarily permit a left-to-right shunt flow of blood. A reversal of flow through the shunt, producing cyanosis, may occur during periods of stress, such as exercise or crying, or when right heart hypertension results from other cardiovascular lesions. In most instances the diagnosis may be assumed from the clinical evidence alone. Definite proof of the exact nature of the defect, with the possible exception of a typical case of patent ductus arteriosus, is dependent on cardiac catheterization. This is true particularly of transposition of pulmonary veins, which is not an uncommon lesion but which rarely is thought of clinically. Angiocardiography is of little value in the diagnosis of left-to-right shunts. It is most difficult to demonstrate the shunt by recirculation and at best this is an unreliable observation. However, as was previously noted, in the presence of cyanosis and therefore a reversal of the flow through the shunt, angiocardiography is indicated.

Anomalies of the Aorta

Coarctation is the most frequently encountered anomaly of the aorta and it is only the exceptional case that presents a problem in diagnosis. When problems do arise, angiocardiography, or preferably retrograde carotid angiography, should be performed in an attempt to demonstrate the lesion. There is some disagreement as to whether angiocardiography is necessary in all cases of coarctation before operation. Many surgeons feel that it is of value for them to know the exact site, degree and extent of the coarctation in each case. Others are of the opinion that angiocardiography should be done only when there are unusual findings. It should be noted that hypoplasia of the aorta produces a clinical picture very similar to that of coarctation and that only angiocardiography can differentiate the two (Figure 3). Admittedly, these cases are rare; nevertheless, needless operation can be avoided.

Other anomalies of the aorta, such as right aortic arch and double aortic arch, are diagnosable usually by conventional radiography. Seldom is angiocardiography necessary.

Pericarditis

The diagnosis of pericardial effusion by ordinary clinical and radiological methods may be most difficult. However, it usually can be proved by pericardial paracentesis, and angiocardiography is rarely necessary. This is not the case in fibrinous or fibrous pericarditis where the thickness of the pericardium cannot be determined by aspiration or by any means other than angiocardiography. It is not often that angiocardiography is required to establish the presence of constrictive pericarditis. Where there is enlargement of the cardiac silhouette it may

be of value in determining the thickness of the pericardium and the size of the heart itself. In rare instances an obstruction to the superior vena cava at its junction with the right atrium may be demonstrated (Figure 4).

Aortic Aneurysms and Mediastinal Tumors

Usually it is not difficult to differentiate between an aortic aneurysm and a non-vascular mediastinal tumor but many cases are encountered in which this is not possible by ordinary means. In these circumstances angiocardiography may be the only diagnostic procedure available short of surgical exploration (Figure 5). However, angiocardiography is not infallible. Frequently the contrast medium does not opacify relatively small saccular aneurysms, or the aneurysm may be filled with clot.

Since angiocardiography is primarily a means of visualizing the anatomy of the heart, it is often most helpful in clarifying the nature of unusual or unexplained cardiac findings. As in pericarditis, it may demonstrate a normal-sized heart surrounded by thickened pericardium; the size of individual chambers may be determined; or the heart may be delineated from a contiguous mediastinal mass.

Many diseases such as syphilitic aortitis, essential hypertension, mitral stenosis, cor pulmonale, tuberculosis and bronchogenic carcinoma have been studied by angiocardiography. These studies have added greatly to understanding of the various diseases and to the ability to interpret the changes seen by conventional radiography. However, as a practical diagnostic procedure in these conditions, angiocardiography is of value only in occasional and carefully selected cases.

1200 North State Street.

A.M.A. Exhibit Used in Traffic Court

FOLLOWING the A.M.A. Clinical Session in St. Louis last December, one of the A.M.A. exhibits, entitled "Testing the Drinking Driver," was displayed in the St. Louis Traffic Court for several weeks.

In a note of appreciation, one of the St. Louis judges praised the exhibit very highly, saying he thought more should be made available to courts all over the country by the A.M.A. and the National Safety Council.

"If made available in sufficient numbers and placed in courtrooms where many traffic violators are present each day, such an exhibit will help to reduce the 'driving while intoxicated' accidents throughout the country," the judge said. "It is a pertinent exhibit and should be displayed wherever possible."

—A.M.A. Secretary's Letter

The Chloride-Water Balance Sheet

An Aid in the Management of Difficult Fluid Balance Problems

H. H. BELDING III, M.D., Riverside

• In cases in which there is massive loss of fluids or electrolytes or prolonged decreased urinary output, an absolutely accurate knowledge of all water and chloride intake and output by all routes is necessary to avert large and often fatal errors in water and electrolyte therapy based on estimates made from nurses' notes alone.

By use of the Scribner water-chloride balance sheet method of recording data, it is possible to determine with the necessary accuracy how much fluid and what kind of electrolytes to administer to achieve and maintain balance. The method is simple and can be put into effect in any hospital with the cooperation of an educated nursing and laboratory staff.

DURING THE PAST TWENTY YEARS with an increasing knowledge of the dynamics of exchange of water and electrolytes among the three compartments of the body and a more accurate knowledge of the functions of the various electrolytes it has become possible to accurately diagnose, anticipate and treat severe water and electrolyte problems.

In dealing with certain clinical syndromes it is necessary to have an absolutely accurate determination of intake and output, not only of water but also of electrolytes. These conditions fall into two main categories. First, those in which there are large abnormal losses of water and electrolytes such as occur occasionally with pseudomembranous ileocolitis, obstruction of the small bowel, duodenal fistula, ileostomy, biliary or pancreatic fistula, or following gastric operations, particularly gastroenterostomy and vagotomy. The second category comprises conditions in which the patient has diminished potential output of water and electrolytes, such as chronic nephritis, lower nephron nephrosis and cardiac decompensation. Oliguria caused by acute dehydration is almost invariably cured by adequate administration of water.

In the management of these conditions there must be no estimations or guessing of intake and output, for, as has been demonstrated repeatedly in fatal cases, an error of as much as 300 per cent can thus be made, leading directly to death of the patient.

SIMPLE, ACCURATE RECORDING METHOD

Scribner[2] in 1949 devised a simple and yet extremely accurate method of recording exactly all intake and output of water and chloride on a consecutive 24-hour basis so that the attending physician might know at all times the water and electrolyte status of the patient, with a cumulate positive or negative balance on an easily read balance sheet from day to day. Scribner stated that an accurate knowledge of all chloride intake and output together with a pH determination on all types of fluid lost obviates the necessity of measurement of other important electrolytes such as sodium and potassium and that the status of these anions may be estimated most accurately from quantitative chloride concentrations and pH determinations.

PRINCIPLES USED IN CONSTRUCTION AND EVALUATION OF THE BALANCE SHEET

To set up the balance sheet, it is necessary first to estimate the water and electrolyte status of the patient by a careful review of the amount and sources of fluid and electrolyte losses and of the volume of urinary output since the onset of illness. A careful physical examination should then substantiate the impressions gained from the history. Then laboratory determinations of the content of chlorides in the serum, of carbon dioxide combining power, of non-protein nitrogen content and hematocrit should be studied. From all these data the water and electrolyte status of the patient at that particular moment may be fairly accurately estimated. In the author's opinion, serum potassium and serum sodium determinations are unnecessary (as well as impossible in small hospitals without the facilities of a flame photometer) in evaluating this problem, as they may be very accurately estimated from the serum chloride and carbon dioxide combining power determinations as well as from the history of the type of fluids lost. At this time an estimate is made of the variation of chloride (in milliequiva-

Part of a Symposium on Nutrition and Electrolytes presented before the Section on General Surgery at the 82nd Annual Session of the California Medical Association, Los Angeles, May 24-28, 1953.

SPECIAL BEDSIDE INTAKE AND INCONTINENCE RECORD

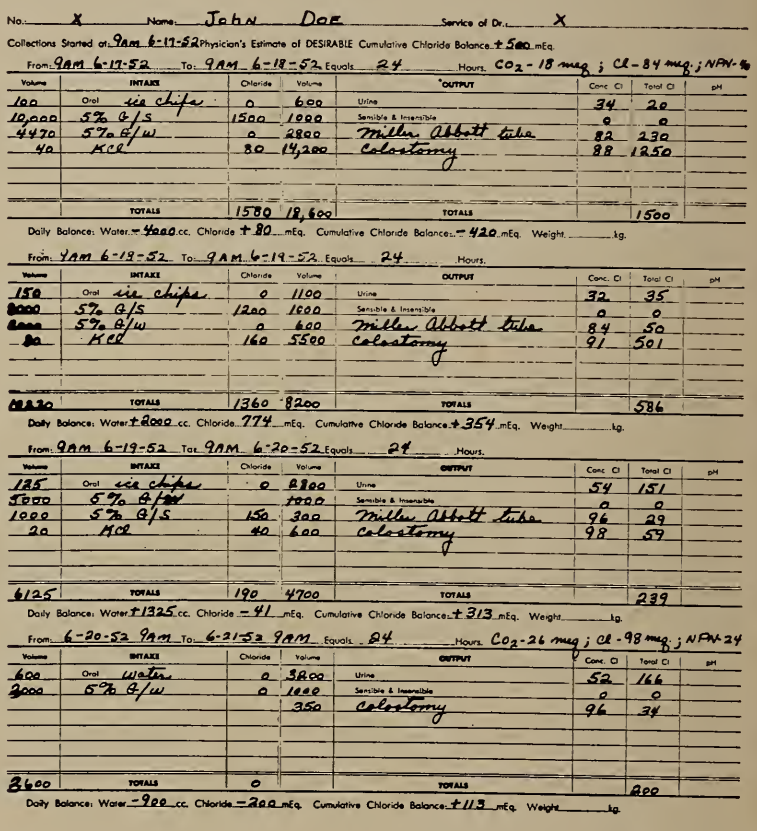
(Replaces Nurses Bedside Record when Patient is on Special Fluid Balance Study)

Clinic No. _____ Sheet No _____

Name _____ Service of Dr. _____ Date _____

		INTAKE						SPILLAGE AND INCONTINENCE		NURSES NOTES	
		Oral, Tube feedings, irrigations, enemas		Intravenous and Subcutaneous				Estimate volume of specimen lost. Do not record specimens saved.		Amt. of visible perspiration i.e. "None slight" etc.	Treatments and Medications
				Type of fluid and Medications Added.	Time		Vol. Taken				
DATE	TIME	Type of fluid	vol		Began	Comp		Type of fluid	vol.		
2/10	6PM	SEE DIET CARD S. JONES								NONE	
				1000 CC. 5%1 WITH							LIGHT TO WOUND - 20 MIN. S. JONES
	10PM	MILK S. JONES	100	26M POTASSIUM							EVENING CARE S. JONES
				CHLORIDE AND							
				1cc BERISA C							
				ADDED S. JONES	7PM	7PM	1000				
2/11	1AM	WATER D. SMITH	50					URINE SPILLED D. SMITH	800	PROFUSE	
											MORPHINE SULFATE GR. 1/6 (H) D. SMITH
	4AM	NASAL IRRIG.						EMESIS ON FLOOR D. SMITH	300	SLIGHT	
		BOTTLE REFILLED D. SMITH	1000								
											PATIENT HAD A RESTLESS NIGHT D. SMITH
2/11	7AM	S.S. ENEMA A. CLARK	500								
	8AM			2000 cc 5%D A. CLARK	8AM	9AM	800				MORNING CARE A. CLARK
											SODIUM CHLORIDE TABS 2GM A. CLARK
				End of Period				9am 2-11-		SO	
				1200 cc 5%D	9AM						

Figure 1.—Special bedside intake and incontinence form for accurate recording of nurses' notes. (Scribner.)



No: X Name: John Doe Service of Dr.: X

Collections Started at 9am 6-19-52 Physician's Estimate of DESIRABLE Cumulative Chloride Balance + 500 mEq.

From: 9AM 6-19-52 To: 9AM 6-18-52 Equals 24 Hours. CO_2 - 18 meq ; Cl - 84 meq ; NPN - %

Volume	INTAKE	Chloride	Volume	OUTPUT	Conc. Cl	Total Cl	pH
100	Oral ice chips	0	600	Urine	34	20	
10,000	5% G/S	1500	1000	Sensible & Insensible	0	0	
4470	5% G/W	0	2800	Miller Abbott tube	82	230	
40	KCl	80	14,200	Colostomy	88	1250	
	TOTALS	1580	18,600	TOTALS		1500	

Daily Balance: Water - 4220 cc. Chloride + 80 mEq. Cumulative Chloride Balance: - 420 mEq. Weight ____ kg.

From: 9AM 6-19-52 To: 9AM 6-19-52 Equals 24 Hours.

Volume	INTAKE	Chloride	Volume	OUTPUT	Conc. Cl	Total Cl	pH
150	Oral ice chips	0	1100	Urine	32	35	
8000	5% G/S	1200	1600	Sensible & Insensible	0	0	
4000	5% G/W	0	600	Miller Abbott tube	84	50	
80	KCl	160	5500	Colostomy	91	501	
12230	TOTALS	1360	8200	TOTALS		586	

Daily Balance: Water + 2000 cc. Chloride - 774 mEq. Cumulative Chloride Balance + 354 mEq. Weight ____ kg.

From: 9AM 6-19-52 To: 9AM 6-20-52 Equals 24 Hours.

Volume	INTAKE	Chloride	Volume	OUTPUT	Conc. Cl	Total Cl	pH
125	Oral ice chips	0	2300	Urine	54	151	
5000	5% G/W		1000	Sensible & Insensible	0	0	
1000	5% G/S	150	300	Miller Abbott tube	96	29	
20	KCl	40	600	Colostomy	98	59	
6125	TOTALS	190	4700	TOTALS		239	

Daily Balance: Water + 1325 cc. Chloride - 41 mEq. Cumulative Chloride Balance + 313 mEq. Weight ____ kg.

From: 6-20-52 9AM To: 6-21-52 9AM Equals 24 Hours. CO_2 - 26 meq ; Cl - 98 meq ; NPN - 24

Volume	INTAKE	Chloride	Volume	OUTPUT	Conc. Cl	Total Cl	pH
600	Oral water	0	3800	Urine	52	166	
2000	5% G/W	0	1000	Sensible & Insensible	0	0	
			350	Colostomy	96	34	
2600	TOTALS	0		TOTALS		200	

Daily Balance: Water - 900 cc. Chloride - 200 mEq. Cumulative Chloride Balance + 113 mEq. Weight ____ kg.

Figure 2.—Water-chloride balance sheet on Case 1. The patient had pseudomembranous ileocolitis that developed five days after right transverse loop colostomy was performed for obstructing diverticulitis of the rectosigmoid.

lents) from normal. Here a surprisingly wide range of safety exists, according to Stewart and Rourke[4] and Marriott,[1] who stated that edema does not occur until the chloride excess reaches plus 800 to 1,000 milliequivalents and that drowsiness leading to coma is absent until the chloride deficit reaches minus 1,000 to 1,500 milliequivalents. Thus a relatively wide margin of error in the estimation of chloride variation at the time of starting the balance sheet may be safely allowed.

The balance sheet is then started and all previous specimens of output discarded. The absolute cooperation of nurses is required for this balance study, and Scribner has printed detailed instructions for them. Routinely a cover is taped over the toilet bowl so that no excretions will be lost, and every cubic centimeter of fluid that comes from the patient by any route is collected in labeled jars, a jar for each type of fluid, and saved in consecutive 24-hour periods for laboratory determination. All intake is accurately recorded on special nurses' notes (Figure 1). The required intake for the first 24 hours is estimated from the original evaluation of the patient's status. At the end of 24 hours a laboratory technician measures the volume of each type of fluid lost, such as urine, feces, gastrointestinal contents and ileostomy drainage, and, by using the bedside determination of chloride as described by Scribner,[3] finds the chloride concentration of each sample. The volume and chloride concentration of each type of fluid are then recorded on the output side of the balance sheet for the past 24 hours and a new 24-hour period of collections is begun. Consecutive 24-hour studies are carried out until the patient is out of danger. It is not necessary or advisable to correct severe chloride deficiencies rapidly; it may be done gradually over a period of several days. However, if renal function is normal, water deficiency may be corrected in a short period. As shown in Figures 3 and 4, the cumulative surplus or deficit of chloride and water is carried over from day to day, thereby giving valuable data as to whether the deficiencies or excesses are being corrected.

URINARY CHLORIDE DETERMINATIONS

Urinary chloride determinations as a measure of the chloride status of the body have lost some favor owing to the possibilities of error, principally in three situations: urinary content of chlorides may be low in cases of extreme chloride deficiency, of severe potassium deficiency, or of severe renal disease. However, serial urinary chloride determinations have been demonstrated to be of considerable value in that the chloride status may be evaluated at any specific time with a determination on fresh urine, and day-to-day determinations indicate accurately whether or not a chloride or water imbalance is being corrected.

REPORTS OF TWO CASES

Case 1. A 63-year-old man, five days after right transverse colostomy for obstructing diverticulitis of the sigmoid, had sudden onset of abdominal cramps and almost constant gushing of watery fluid from the artificial anus, associated with nausea and vomiting. No abnormalities were noted in the abdomen when examination was carried out three hours after the symptoms began. Analysis of fluid losses 8 hours after onset of symptoms showed loss of 7,800 cc. from the artificial anus, 270 cc. as urine and 1,700 cc. through the Miller-Abbott tube. Pseudomembranous ileocolitis was diagnosed and a water-electrolyte balance study was carried out (Figure 2). Suitable replacement therapy was administered and the patient recovered.

Comment: Obviously any attempt at a rough estimate of fluid and electrolyte losses could have been in error by 200 to 300 per cent, which in this case probably would have led rapidly to the death of the patient. The accurate and cumulative recording of all intake and output of water and chloride undoubtedly saved the patient's life.

* * *

Case 2. A 49-year-old white male, eight days after posterior Polya gastrectomy for obstructing duodenal ulcer without insertion of drains at the time of operation down to the duodenal stump, suddenly went into shock, with a drop in blood pressure from 214/90 to 84/30 and a pulse of 140. Complete examination at this time revealed no apparent cause for the shock and no evidence of bleeding or signs of peritonitis. The lungs were clear and there was no evidence of pulmonary embolism or coronary disease. All attempts at correction of shock were unsuccessful. Six hours later the condition had not changed except for some diminution in bowel sounds and questionable slight distention of the abdomen. Empirically a hemostat was slipped through the incision into the peritoneal cavity and approximately 2,500 cc. of bile-stained fluid was expressed. A diagnosis of duodenal stump perforation was made and proper treatment instituted. The urinary output during the next 24 hours was less than 100 cc. Lower nephron nephrosis was diagnosed and a water-electrolyte balance study was begun. The patient was oliguric for 14 days (see Figure 3, *A*, *B* and *C*) with a steady increase in non-protein nitrogen. Diuresis then occurred and the patient recovered. The duodenal fistula was completely closed spontaneously in eight days.

Comment: Lower nephron nephrosis due to prolonged shock necessitates absolutely accurate knowledge of all intake and output in order to avoid overloading the patient with water or electrolytes. The

WATER-CHLORIDE BALANCE SHEET

No.: — Name: G.S.W. Service of Dr.: Belding

Collections Started at: 3 P.M. 7-20-52 Physician's Estimate of DESIRABLE Cumulative Chloride Balance: +450 mEq. K - 3.8 meq.

From: 3 P.M. 7-20-52 To: 3 P.M. 7-21-52 Equals: 24 Hours. NPN - 26 ; CO_2 - 25.2 Meq.; Cl 90m

Volume	INTAKE	Chloride	Volume	OUTPUT	Conc. Cl	Total Cl	pH
		meq.			meq.	meq.	
0	Oral	00	50	Urine	45	20	
2000	5% glucose in saline	300	1000	Sensible & Insensible	0	0	
1000	5% glucose in H_2O	0	855	Levine tube	82	70	
			1520	wound suction	88	133	
3000	TOTALS	300	3425	TOTALS		205	

Daily Balance: Water -425 cc. Chloride +95 mEq. Cumulative Chloride Balance: -355 mEq. Weight — kg.
Cum. H_2O = -425cc

From: 3P.M. 7-21-52 To: 3P.M. 7-22-52 Equals: 24 Hours.

Volume	INTAKE	Chloride	Volume	OUTPUT	Conc. Cl	Total Cl	pH
0	Oral	0	90	Urine	47	4	
2000	5% glucose in saline	300	1000	Sensible & Insensible	0	0	
1000	5% glucose in water	0	1240	Levine tube	94	106	
40	KCl	20	1710	wound suction	97	166	
3040	TOTALS	320	4040	TOTALS		276	

Daily Balance: Water -1000 cc. Chloride +44 mEq. Cumulative Chloride Balance: -311 mEq. Weight — kg.
Cum. H_2O = -1425cc

From: 3P.M. 7-22-52 To: 3P.M. 7-23-52 Equals: 24 Hours.

Volume	INTAKE	Chloride	Volume	OUTPUT	Conc. Cl	Total Cl	pH
120	Oral ice chips	0	75	Urine	42	3	
2000	Glucose in saline	300	1000	Sensible & Insensible	0	0	
2000	5% glucose in H_2O	0	1410	Levine tube	98	138	
80	KCl	40	690	wound suction	108	75	
4200	TOTALS	340	3175	TOTALS		216	

Daily Balance: Water +1025 cc. Chloride +124 mEq. Cumulative Chloride Balance: -187 mEq. Weight — kg.
Cum H_2O = - 400cc

From: 3P.M. 7-23-52 To: 3P.M. 7-24-52 Equals: 24 Hours. NPN - 148 ; CO_2 - 18.0 ; Cl - 98

Volume	INTAKE	Chloride	Volume	OUTPUT	Conc. Cl	Total Cl	pH
90	Oral ice chips	0	110	Urine	54	6	
1500	5% glucose in saline	225	1000	Sensible & Insensible	0	0	
1000	5% glucose in H_2O	0	1120	Levine tube	128	143	
40	KCl	20	245	Wound suction	126	31	
2630	TOTALS	245	2475	TOTALS		180	

Daily Balance: Water +155 cc. Chloride +55 mEq. Cumulative Chloride Balance: -132 mEq. Weight — kg.
Cum H_2O = - 245 cc

From: 3P.M. 7-24-52 To: 3P.M. 7-25-52 Equals: 24 Hours. K - 4.2 meq.

Volume	INTAKE	Chloride	Volume	OUTPUT	Conc. Cl	Total Cl	pH
180	Oral ice chips	0	85	Urine	52	4	
1000	5% glucose in saline	150	1000	Sensible & Insensible	0	0	
1000	5% glucose in water	0	980	Levine tube	132	129	
40	KCl	20	160	Wound suction	138	22	
2220	TOTALS	170	2225	TOTALS		155	

Daily Balance: Water -5 cc. Chloride +15 mEq. Cumulative Chloride Balance: -117 mEq. Weight — kg.
Cum. H_2O = - 250cc

MC-953

A

WATER-CHLORIDE BALANCE SHEET

No.: — Name: G.S.W. Service of Dr.: Belding

Collections Started at: — Physician's Estimate of DESIRABLE Cumulative Chloride Balance: — mEq.

From: 3 P.M. 7-25-52 To: 3 P.M. 7-26-52 Equals: 24 Hours.

Volume	INTAKE	Chloride	Volume	OUTPUT	Conc. Cl	Total Cl	pH
150	Oral ice chips	0	135	Urine	50	7	
1000	5% glucose in saline	150	1000	Sensible & Insensible	0	0	
1000	5% glucose in water	0	890	Levine tube	136	121	
40	KCl	20	220	Wound suction	129	28	
2190	TOTALS	170	2245	TOTALS		156	

Daily Balance: Water -55 cc. Chloride +14 mEq. Cumulative Chloride Balance: -103 mEq. Weight — kg.
Cum. H_2O = - 305cc

From: 3 P.M. 7-26-52 To: 3P.M. 7-27-52 Equals: 24 Hours.

Volume	INTAKE	Chloride	Volume	OUTPUT	Conc. Cl	Total Cl	pH
210	Oral ice chips	0	105	Urine	48	5	
500	5% glucose in saline	75	1000	Sensible & Insensible	0	0	
1500	5% glucose in water	0	1280	Levine tube	134	172	
40	KCl	20	35	wound suction	80	3	
2250	TOTALS	95	2420	TOTALS	[illegible]	180	

Daily Balance: Water -170 cc. Chloride -85 mEq. Cumulative Chloride Balance: -188 mEq. Weight — kg.
Cum. H_2O = - 475cc

From: 3P.M. 7-27-52 To: 3P.M. 7-28-52 Equals: 24 Hours. NPN - 210 ; CO_2 - 14 ; Cl - 101

Volume	INTAKE	Chloride	Volume	OUTPUT	Conc. Cl	Total Cl	pH
180	Oral ice chips	0	90	Urine	47	4	
1000	5% glucose in saline	150	1000	Sensible & Insensible	0	0	
1000	5% glucose in water	0	1020	Levine tube	126	129	
			40	Wound suction	64	3	
~~2180~~			~~2160~~				
2180	TOTALS	150	2150	TOTALS		136	

Daily Balance: Water +30 cc. Chloride +14 mEq. Cumulative Chloride Balance: -174 mEq. Weight — kg.
Cum. H_2O = - 445 cc

From: 3P.M. 7-28-52 To: 3P.M. 7-29-52 Equals: 24 Hours. K - 4.0

Volume	INTAKE	Chloride	Volume	OUTPUT	Conc. Cl	Total Cl	pH
250	Oral ice chips	0	210	Urine	51	11	
1000	5% glucose in saline	150	1000	Sensible & Insensible	0	0	
1000	5% glucose in H_2O	0	640		136	86	
40	KCl	20	10		42	1	
2290	TOTALS	170	1860	TOTALS		98	

Daily Balance: Water +430 cc. Chloride +72 mEq. Cumulative Chloride Balance: -102 mEq. Weight — kg.
Cum. H_2O = -15

From: 3P.M 7-29-52 To: 3P.M. 7-30-52 Equals: 24 Hours.

Volume	INTAKE	Chloride	Volume	OUTPUT	Conc. Cl	Total Cl	pH
0	Oral —		90	Urine	56	.5	
2000	5% glucose in H_2O	0	1000	Sensible & Insensible	0	0	
			0	Levine tube (removed)	—		
			10	Wound suction	20	0	
2000	TOTALS	0	1100	TOTALS		5	

Daily Balance: Water +900 cc. Chloride -5 mEq. Cumulative Chloride Balance: -107 mEq. Weight — kg.
Cum. H_2O = +815 cc

C-953

B

Figure 3.—The two sheets reproduced above (A and B) and the sheet on the next page (C) are the water-chloride balance sheet on Case 2. The patient had lower nephron nephrosis following prolonged shock and oliguria for fourteen days followed by diuresis and recovery.

C

(Continued from preceding page)

WATER-CHLORIDE BALANCE SHEET

No. —— Name G. S. W. Service of Dr. Reading

Collections Started at: Physician's Estimate of DESIRABLE Cumulative Chloride Balance. . . . mEq.

From: 7-30-52 8PM To: 3PM 7-31-52 Equals 24 Hours.

INTAKE Volume	INTAKE	INTAKE Chloride	OUTPUT Volume	OUTPUT	OUTPUT Conc. Cl	OUTPUT Total Cl	pH
1280	Oral	26	125	Urine	58	7	
			1000	Sensible & Insensible	0	0	
			0	Wound suction (discontinued)	0	0	
1280	TOTALS	26	1125	TOTALS		7	

Daily Balance: Water +155 cc Chloride +19 mEq. Cumulative Chloride Balance: −88 mEq. Weight — kg.

Cum. H_2O = +990 cc

From: 7-31-52 3PM To: 3PM 8-1-52 Equals 24 Hours.

INTAKE Volume	INTAKE	INTAKE Chloride	OUTPUT Volume	OUTPUT	OUTPUT Conc. Cl	OUTPUT Total Cl	pH
980	Oral	14	325	Urine	56	18	
			1000	Sensible & Insensible	0	0	
980	TOTALS	14	1325	TOTALS		18	

Daily Balance: Water −345 cc Chloride −4 mEq. Cumulative Chloride Balance: −92 mEq. Weight — kg.

Cum. H_2O = +635 cc

From: 8-1-52 3PM To: 8-2-52 3PM Equals 24 Hours. NPN- 334; CO_2 - 10; Cl - 108

INTAKE Volume	INTAKE	INTAKE Chloride	OUTPUT Volume	OUTPUT	OUTPUT Conc. Cl	OUTPUT Total Cl	pH
1040	Oral	22	190	Urine	58	11	
			1000	Sensible & Insensible	0		
1040	TOTALS	22	1190	TOTALS		11	

Daily Balance: Water −150 cc Chloride +11 mEq. Cumulative Chloride Balance: −81 mEq. Weight — kg.

Cum. H_2O = +485 cc

From: 8-2-52 3PM To: 8-3-52 3PM Equals 24 Hours.

INTAKE Volume	INTAKE	INTAKE Chloride	OUTPUT Volume	OUTPUT	OUTPUT Conc. Cl	OUTPUT Total Cl	pH
3150	Oral	186	6250	Urine	42	262	
				Sensible & Insensible			
3150	TOTALS	186	6250	TOTALS		262	

Daily Balance: Water −3100 cc Chloride −76 mEq. Cumulative Chloride Balance: −157 mEq. Weight kg.

Cum H_2O

From: To: Equals Hours.

Volume	INTAKE	Chloride	Volume	OUTPUT	Conc. Cl	Total Cl	pH
	Oral			Urine			
				Sensible & Insensible			
	TOTALS			TOTALS			

Daily Balance: Water cc. Chloride mEq. Cumulative Chloride Balance: mEq. Weight kg.

water-chloride balance sheet was the perfect and life-saving answer to the management of this case.

3616 Main Street.

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Faulty Healing in the Lower Extremities

Vascular Deficiency as a Complication in Industrial Injuries

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• *The failure of injuries of the lower extremities to heal properly can often be traced in older persons to arteriosclerosis obliterans. In industry this condition presents a serious problem to older workers, to employers and to insurance carriers.*

In persons with severe varicosis or those who have had extensive thrombophlebitis, ulcers of the leg may develop following bruising of the skin in the region of the ankle.

A third and little recognized condition is edema with or without induration of the skin and subcutaneous structures of the leg, with or without the existence of varicose veins and without evidence of cardiac or renal disorders. This condition is often associated with the absence of or marked diminution of the production of hydrochloric acid by the stomach. An accompanying diminution in or absence of pepsin may occur. It is corrected slowly by taking with each meal small amounts of dilute hydrochloric acid. When pepsin is deficient, the enzyme papain is given.

SINCE PREEXISTING IMPAIRMENT of the circulation of blood may be a cause of delayed or faulty healing in cases of industrial injury, all examinations for employment should include a study of the peripheral vascular system, including the pedal arteries. In addition, as the effective working life of employees is becoming progressively prolonged, periodic examinations should be made of the circulation. If defects are found, special studies should be made to determine whether the changes are such as might create conditions that would delay or prevent normal healing if injury should occur. Such changes are often "silent" until exposed by an injury that may be quite trivial, with the result that insurance carriers and employers are inclined to avoid the risk of employing older persons.

If preliminary and periodic examinations are done it is more likely that these defects will be discovered and that the interested parties can agree to some modification of the rules of compensation to fit the circumstances, so that an employed person will not be permitted to retire as an industrial casualty simply because a preexisting condition prevents normal healing of an essentially trivial injury. General application of such a program of examinations could speed the implementation of a limited coverage insurance plan that recognized the preexisting defect. With employer and insurance carrier thereby assured that they would be held responsible for no more than their fair share of the compensation in case of accident, job opportunities for older persons might increase.

ARTERIAL OCCLUSION

The arterial disorder that is most often encountered is arteriosclerosis obliterans. Frequently persons who have the condition are unaware of it until some injury makes unusual demands upon the circulation. Even moderate bruising of the toes, foot or shin may be enough to result in permanent disability and at times lead to amputation of a limb. If the condition is known to be present, the need for care and protective measures to avoid injury will be recognized by patient and physician alike.

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Lest congenital absence of pulsation in one of the pedal arteries be mistaken for disease, a diagnosis of arterial deficiency cannot be made unless there are other symptoms such as unusually severe or persistent discomfort, or signs of anoxia, such as edema and a shallow reddishness of the skin of the toes and foot. The latter must be differentiated from capillary dilatation due to venous disorders. Usually the pinkness resulting from venous disorders involves the vessels of the deeper skin area and may not affect the toes at all. Sluggish healing is an additional indication of arterial deficiency as is loss of color from the foot of the affected extremity when the patient is placed on his back with the lower extremities elevated at an angle of 45 to 60 degrees.

On the other hand the presence of good pulsation in one pedal artery does not, of itself, rule out an occlusive disorder. Advanced ulcers of the skin due to arteriosclerosis obliterans have been seen in persons with good posterior tibial pulsations. X-ray studies are of limited value in determining the effec-

tiveness of the circulation, for calcified vessels may be carrying adequate amounts of blood and vessels without calcification may be completely blocked.

In the presence of arterial deficiency, trauma must be avoided. Incisions of the skin of the ankle and foot may not heal. Open reduction of a fracture of this area may jeopardize the limb. Injection therapy for varicose veins of the ankle in such a case has led to supracondylar amputation of the leg.

Contrast baths would appear to be of limited value, for heat dilates the capillaries and increases the utilization of oxygen and nourishment without increasing the limited inflow of blood through the larger, occluded vessels. Harsh chemicals applied to the skin are painful and ineffectual. Soaks wet the skin and invite infection. Oily dressings appear to be preferable.

Elastic support, which might ordinarily be used in dealing with edema or varicose veins, must be used with great caution in order to avoid constriction of the small arteries of the skin upon which healing may be dependent. Use of elástic bandages and casts for ulcers, even varicose in origin, may be dangerous to survival of the limb.

Finally, it must be kept in mind at all times in dealing with cases of injury in which circulating insufficiency is a factor, that it may be impossible to restore the limb to the pre-injury status, and moreover that use of measures that normally would be effectual might even be damaging.

VENOUS STASIS

Venous stasis is a more common but usually less disabling disorder. It may be acute or chronic. The acute form occurs at the time of or shortly after injury. It develops as a swelling of all or a portion of the lower extremity. In some cases there may be no pain or other definitive evidence of blocking of the femoral vein, while in others all the symptoms of femoral thrombophlebitis may be present, including low-grade fever and pain and tenderness in the groin and in the muscles of the thigh and calf. In either event the affected limb should be elevated and anticoagulant therapy administered. If there is a constricting cast at the site of stasis, it should be removed. The prognosis is for prolonged convalescence and possibly chronic, somewhat disabling venous congestion associated with edema and perhaps with late ulceration. If the occlusion is moderate, a fair amount of counter-pressure support usually can be tolerated, but support is painful and ineffectual in cases of pronounced occlusion.

A peculiarity of the edema that develops from venous stasis is that it may persist for some time, perhaps six months, then subside gradually as recanalization takes place, and later, if damage to the valves has been considerable and recanalization develops normally, enter a third phase of persistent edema with possibly the later occurrence of eczema and even ulceration. In patients who are in a poor nutritional state, serious, permanent occlusion of the deep veins may develop, characterized by aching, persistent purplish discoloration of the extremity, and at times reduced muscular efficiency.

The chronic forms of venous stasis occur in association with advanced cases of varicose veins or as the residual effect of a femoral-popliteal thrombophlebitis. In either situation, ulcers of the lower leg and ankle may develop spontaneously. The condition may cause delay in healing of any injury at the site and it may result in ulceration of the skin in the area of the injury.

Salves and antibiotic lotions, although often used in the treatment of conditions caused by venous stasis, are of no specific value, since the indolence and ulceration are not related to infection but rather to stagnation of fluids in the extravascular spaces. This stagnation, as Landis explained, occurs because the abnormally high intravenous pressure associated with venous stasis prevents the osmotic action by which fluids are drawn into the veins from the extravascular spaces.

Elastic supports are used for temporary countering of the increased intravenous pressure by exerting a positive compressive force on the leg against the existing edema. The strength of support may range from that of a light elastic stocking to that obtained with supportive "casts" made of cotton gauze bandage, sponge rubber and adhesive tape. The once popular gelatin boot is relatively ineffective as a means of reducing edema, for it exerts no positive pressure as stretched elastic does, and in warm weather it may soften and relax what little support it does give.

"Casts" made of gauze, sponge rubber and tape or elastic bandage are particularly useful in reducing edema and induration and healing eczema and ulcers. If fungous infection is present it should be treated with fungicides or with light doses of x-ray.

Temporary reduction of the increased intravenous pressure may be brought about by the injection of sclerosing solutions. The blocking effect is rarely permanent, although it may last for from several months to several years.

Permanent reduction in intravenous pressure is attained in the superficial varices by excision of the affected veins and interruption of their connections with the deep venous system by ligation and division of the perforator veins. If vessels that should be removed are overlooked, the operation may be of only limited value. Even with the best of selection and operation, additional operation is necessary in about

15 per cent of cases, due to the unpredictability of varicosis.

In cases in which superficial varices have occurred following thrombosis in the deep venous system, reduction in the pressure in the superficial veins by injection or by excision of the veins may sometimes be very useful. First, of course, it must be made certain that the deep veins are patent. In the author's opinion such treatment should not be resorted to until a year or more after the active phase of phlebitis has passed. Neither should it be used in patients who have a persistent purplish discoloration of the skin of the foot and leg, for the discoloration is positive evidence of persistent obstruction in the deep veins.

SUDECK'S DYSTROPHY

Another disorder of the circulation with which industrial physicians must deal is Sudeck's atrophy or Sudeck's dystrophy. This rare and very disabling condition is often misdiagnosed and mismanaged because the inciting trauma is usually trivial and the objective symptoms are not pronounced at first. The complaints appearing to be excessive, the patient may be considered a malingerer. Diagnosis depends in large part on alertness to minor deviations from the normal which are the significant signs of the disease. Usually in the early stages of the disease there are mild swelling and a slight increase in the temperature of the skin of the affected foot. Later, the warmth gives way to slight to moderate coolness that may extend as high as the knee. The coolness may be so mild that it is not noted in the course of a cursory examination. Radiographically observed, the density of the bones of the feet diminishes slightly within two to three weeks after the injury.

The treatment of choice in the early stages is the injection of the region of the lumbar sympathetic nerve chain of the affected limb with 12 to 15 cc. of a 1 or 2 per cent solution of procaine, weekly at first and later at intervals of two to three weeks. The treatment may require four to eight months. Even when diagnosis is not made until the late stages of the disorder—that is, several months to a year or longer after the injury, when coolness of the skin has developed—the injection treatment should be tried initially. Then, if no improvement occurs within two or three weeks, sympathetic ganglionectomy should be done. The result of this operation is usually good, although it may be somewhat delayed, and in some cases pain in the back at the operative site may develop.

DEFICIENCY EDEMA

Another disorder of the lower extremities that is sometimes puzzling is edema that is not associated with any evidence of the usual causes of edema, such as cardiovascular or renal diseases, but apparently is related to digestive deficiency. The edema is usually bilateral, although one limb may be larger than the other. Usually the appearance is of tensely filled subcutaneous tissue covered by tightly drawn, shiny skin which may resist pressure and not show pitting. The condition may be observed from adolescence onward. The edema may be controlled by elastic support although in general it tends to resist reduction by this means and may even persist with the patient in bed and the legs elevated. Often the patient has a sense of burning of the feet and of extreme tightness of the skin of the feet to the point of bursting.

Varicose veins may occur concomitantly with this condition but they are not related to it. (In one such case the author excised varicose veins in expectation the edema would diminish. It increased.)

Edema of this type is important in industrial medical problems because it can delay the healing of injuries to the lower extremities. Indolent ulcers may occur at the site of an abrasion.

In about half of the patients observed by the author with edema of this order, it was possible to demonstrate a deficiency in the functioning in the mucosa of the stomach—reduced production or complete absence of hydrochloric acid in most cases, and in some a diminution in or absence of peptic digestion also.

The diagnosis *deficiency edema* was made when it was found by gastric analysis that free acid was absent or was diminished by 50 per cent or more in relationship to the normal curve.

In about 50 cases of this kind observed in the past four years, good response was usually obtained from the administration of replacement therapy. For this purpose the author prescribes 20 to 25 minims of dilute hydrochloric acid in water, milk or buttermilk to be taken during the latter part of each meal. Acidulin, in the author's experience, is much less effective. Where indicated 4 to 8 cc. of essence of caroid (papain) is given as a substitute for pepsin. After several weeks or months of this therapy edema usually is diminished or completely resolved, the bursting sensation in the foot is usually controlled and the burning feeling is lessened. Patient and physician alike must be prepared for slowness of improvement.

490 Post Street.

Frozen Raw Foods as Skin-Testing Materials

Further Studies of Use in Cases of Allergic Disorders

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• *In further studies on the use of frozen raw food as skin-testing material in patients with allergic disorders, the results of previous work were confirmed in a greater number of subjects using a larger number of foods:*

Tests with frozen raw foods by the scratch method induce true positive reactions of a larger size and in greater frequency than the corresponding commercial extracts by either the scratch or the intracutaneous method.

Storage in the frozen state for several years does not affect the antigenic potency of the materials. The frozen preparations have caused no harmful effects in the subjects, are free from irritant properties, and are not urticariogenic.

RESULTS WITH THE USE of frozen raw foods as skin-testing materials in subjects with allergic disorders were reported in 1950.[1] Fifty-one foods had been selected as representing the important members of the zoological and botanical groups commonly used in the authors' locality. Each food was collected in the fresh raw state and, according to its physical properties, was reduced to a paste or powder suitable for scratch testing. The material was placed in shell vials of 2 cc. capacity, closed with clean stoppers and immediately stored in a freezing compartment. From this frozen stock, complete sets of the different foods were subsequently assembled into units. A few minutes before the tests were to be made, the unit was removed from the freezer, and the material was permitted to thaw at room temperature. Scratch tests were performed, employing one-tenth normal sodium hydroxide or one-fiftieth normal sodium hydroxide with 30 per cent glycerin as a moistening agent. Remnants of the test materials were discarded at the end of each day's work.

Comparative scratch tests of frozen foods and one or more commercial extracts were made in 66 subjects, the majority of whom had allergic diseases of various types. In 43 of the subjects, the reactions were entirely negative, indicating that the raw foods were non-urticariogenic. Observations, based on over 3000 scratch tests, convinced the authors that these frozen raw materials applied in this manner were harmless to the patients.

In a group of 23 subjects who had positive or doubtful reactions to one or more foods with either the frozen raw materials or the commercial extracts, the raw foods produced true positive reactions of a larger size and in greater frequency than the corresponding commercial extracts.

During the past three years frozen raw food pastes and powders have been used routinely as testing materials in patients suspected of sensitivity to foods. The original list has been increased to 111 foods to include more representatives of the important zoological and botanical groups in common use. In addition to the materials on this basic list for routine testing, various others have been prepared for use in special instances when the history suggested sensitivity to some food not on the basic list or to check closely related foods in the various groups.

The foods that have been used routinely in the studies made since the first report in 1950 are listed in Table 1.

The method of preparation has remained unchanged. It should be emphasized, however, that experience has shown that for certain raw foods there is an optimum amount of grinding and blending sufficient to produce a smooth paste, without causing separation of the material into solid and liquid portions.

The length of time the raw materials retain their antigenic properties when maintained in the frozen state has been investigated. At various intervals, comparative tests have been made of foods prepared and frozen four years ago with similar foods freshly prepared, using subjects known to give positive reactions. It was found in every instance that the frozen raw foods that had been kept as long as four years showed no appreciable loss of antigenic potency.

In 345 new patients, on whom approximately 34,000 tests were made, no harmful effects were noted. Thus, as in the previous study, these frozen raw materials were found to be entirely innocuous to the subjects. Furthermore, in a group of 218

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From the Allergy Clinic, the Department of Medicine, the School of Medicine, University of California, San Francisco.

TABLE 1.—*Foods used routinely in studies of skin-testing with allergens prepared by freezing*

Beef	Artichoke	Cottonseed	Banana
Lamb	Beet	Eggplant	Olive
Pork	Spinach	Paprika	Coconut
Milk, Cow	Lettuce	Pepper, Green	Date
Chicken	Sweet Potato	Potato	Apple
Egg, Chicken	Broccoli	Tomato	Pear
Anchovy	Cabbage	Carrot	Raspberry
Bass	Horseradish	Celery	Strawberry
Cod	Mustard	Dill	Grapefruit
Halibut	Radish	Parsley	Lemon
Tuna	Cantaloupe	Peppermint	Orange
Salmon	Cucumber	Sage	Currant
Sardine	Squash	Vanilla	Grape
Smelt	Watermelon	Clove	Cashew
Sole	Zucchini	Poppyseed	Hazelnut
Crab	Yam	Pepper, Black	Chestnut
Lobster	Mushroom	Curry	Pecan
Shrimp	Yeast	Ginger	Walnut,
Clam	Bean, Lima	Pineapple	English
Oyster	Bean, Navy	Almond	Brazil Nut
Oat	Bean, Soy	Apricot	Pine Nut
Barley	Bean, String	Cherry	Hops
Rye	Licorice	Peach	Coffee
Wheat	Pea	Prune	Cocoa
Corn	Peanut	Cranberry	Tea
Rice	Asparagus	Avocado	Flaxseed
Buckwheat	Garlic	Cinnamon	Honey
Rhubarb	Onion	Fig	Tapioca

patients on whom some 20,000 tests were done, completely negative reactions were obtained, again indicating that these materials do not contain irritants capable of producing false reactions. The nonspecific erythematous reactions occasionally noted with spinach, mustard and eggplant were readily recognized as such.

During the past three years tests with frozen raw foods have been made on 345 subjects with various allergic disorders. In 50 of them who had negative reactions and in five with positive reactions, no comparative studies were made with commercial extracts.

In the remaining 290 subjects the reactions to scratch tests with frozen raw foods were compared with results obtained with commercial extracts used in three ways: (1) scratch test, (2) both scratch and intracutaneous tests, and (3) intracutaneous test only. One hundred sixty-eight of the subjects had entirely negative reactions to the frozen raw foods by scratch test and to the commercial extracts by the scratch or the intracutaneous test, or both.

One hundred twenty-two subjects showed positive or doubtful reactions to at least one of the 108 foods by scratch test with frozen raw foods or commercial preparations. Neither kind of preparation of rhubarb, clove or pear caused any reaction in the subjects tested. The results are summarized in Table 2. The total number of reactions to frozen raw foods was 882 (655 positive, 227 doubtful), as against 567 (275 positive, 292 doubtful) by the same subjects to commercial extracts. In 203 instances, the reaction to a frozen raw food was negative when

TABLE 2.—*Comparative results of scratch tests with frozen raw foods and with commercial extracts in 122 patients who had positive or doubtful reactions to one or more of 108 foods*

	Type of Reaction		
	Positive	Doubtful	Negative*
Frozen Material	655	227	203
Commercial Extract	275	292	518

*Includes those instances in which reaction was negative to either the frozen raw food or commercial extract when positive or doubtful with the other.

TABLE 3.—*Comparative results of scratch tests of frozen raw foods and intradermal tests of commercial extracts in 58 patients who had positive or doubtful reactions to one or more of 87 foods*

	Type of Reaction		
	Positive	Doubtful	Negative*
Frozen Material	201	71	43
Commercial Extracts†	52	63	200

*Includes those instances in which reaction was negative to either the frozen raw food or commercial extract when positive or doubtful with the other.

†Commercial extracts which produced positive reactions by scratch test are not included in this group.

the reaction to a commercial extract was positive or doubtful, whereas the converse was true in 518 instances. This preponderance of positive reactions with frozen raw foods is in agreement with the results reported in 1950.

Fifty-eight patients had negative reaction to scratch tests with commercial extracts of 87 foods, but had positive or doubtful reaction to either the scratch test with frozen raw food or the intracutaneous test with commercial extracts. The results of this comparative study are summarized in Table 3. The total number of reactions to frozen raw foods by scratch test was 272 (201 positive, 71 doubtful), as against 115 (52 positive, 63 doubtful) by the same subjects to commercial extracts by intracutaneous test. In 43 instances the reactions to the frozen raw food were negative when the reactions to the commercial extracts were positive or doubtful, whereas in 200 instances the converse was true. These figures indicate the superiority of the scratch test with frozen raw materials over the intracutaneous test with the corresponding commercial extracts.

In the original report a comparison of the size of the reactions to the frozen raw foods and to the commercial extracts by the scratch method was made, using a grading system of points in which doubtful reactions received a value of 0.5 and positive reactions 1 to 4, the value depending upon the degree of reaction. On this basis there were (in the original report) 344.5 points for the frozen raw food as against 143 for the commercial extracts—indicating a predominantly larger size for the former.

This same comparison was made by one of the authors (G. A.) in 37 of the group of the previously mentioned 58 patients reported upon in Table 3. As shown in Table 4, these 37 patients had positive or doubtful reactions to one or more of 58 foods

TABLE 4.—*Comparative results of scratch tests with frozen raw foods and intracutaneous tests with commercial extracts in 37 subjects who had positive or doubtful reactions to one or more of 58 foods*

Foods	Instances of Reactions	Reactions to Frozen Materials				Reactions to Commercial Extracts*			
		Positive	Doubtful	Negative†	Points‡	Positive	Doubtful	Negative†	Points‡
1. Milk	3	3	....	....	8	3	....	....	6
2. Bass	2	2	....	....	4	....	....	2	....
3. Cod	1	....	1	....	0.5	....	....	1	....
4. Halibut	2	1	1	....	1.5	....	....	2	....
5. Salmon	3	3	....	....	3	....	....	3	....
6. Sardine	1	1	....	....	3	....	....	1	....
7. Sole	5	3	1	1	5.5	1	....	4	2
8. Tuna	4	4	....	....	9	....	1	3	0.5
9. Crab	10	8	2	....	22	1	....	9	4
10. Lobster	3	3	....	....	5	....	1	2	0.5
11. Shrimp	8	8	....	....	18	3	2	3	6
12. Clam	10	10	....	....	23	1	2	7	2
13. Oyster	2	1	....	1	1	....	1	1	0.5
14. Barley	3	1	....	2	2	3	....	....	5
15. Wheat	1	1	....	....	3	....	....	1	....
16. Corn	1	....	1	....	0.5	....	....	1	....
17. Rice	2	2	....	....	2	....	1	1	0.5
18. Buckwheat	1	....	1	....	0.5	....	1	....	0.5
19. Mustard	4	4	....	....	6	....	....	4	....
20. Sprout	1	1	....	....	3	....	....	1	....
21. Cantaloupe	1	1	....	....	1	....	....	1	....
22. Squash	1	1	....	....	2	1	....	....	2
23. Mushroom	2	2	....	....	2	....	....	2	....
24. Lima bean	9	8	1	....	19.5	....	....	9	....
25. Navy bean	2	2	....	....	4	1	....	1	2
26. Soy bean	4	4	....	....	11	2	....	2	2
27. String bean	1	....	1	....	0.5	....	....	1	....
28. Pea	5	2	3	....	7.5	1	....	4	2
29. Peanut	10	6	3	1	14.5	3	....	7	8
30. Garlic	2	2	....	....	3	....	1	1	0.5
31. Onion	1	....	1	....	0.5	....	....	1	....
32. Potato	1	1	....	....	1	1	....	....	4
33. Tomato	1	1	....	....	1	....	....	1	....
34. Caraway	1	1	....	....	4	....	....	1	....
35. Carrot	1	....	....	1	....	....	1	....	0.5
36. Celery	1	....	1	....	0.5	....	1	....	0.5
37. Dill	2	1	1	....	4.5	....	1	1	0.5
38. Parsley	2	....	1	1	0.5	....	2	....	1
39. Curry	1	1	....	....	1	....	....	1	....
40. Pineapple	1	....	1	....	0.5	....	....	1	....
41. Almond	2	1	1	....	1.5	....	....	2	....
42. Apricot	1	....	1	....	0.5	....	....	1	....
43. Peach	2	2	....	....	5	....	....	2	....
44. Avocado	1	1	....	....	1	....	....	1	....
45. Fig	1	1	....	....	3	....	....	1	....
46. Banana	1	....	1	....	0.5	1	....	....	2
47. Coconut	1	....	1	....	0.5	....	....	1	....
48. Date	1	1	....	....	1	....	....	1	....
49. Orange	1	....	....	1	....	1	....	....	1
50. Hazelnut	6	3	2	1	5	2	1	3	6.5
51. Black walnut	3	2	1	....	2.5	....	....	3	....
52. English walnut	5	3	2	....	6	1	....	4	1
53. Pine nut	1	1	....	....	2	....	1	....	0.5
54. Hops	1	1	....	....	1	....	....	1	....
55. Coffee	2	1	1	....	1.5	....	....	2	....
56. Cocoa	2	1	1	....	1.5	....	....	2	....
57. Flaxseed	1	1	....	....	3	....	....	1	....
58. Honey	2	2	....	....	3	1	....	1	1
Totals	150	110	31	9	236.5	27	17	106	63.5

*Commercial extracts which produced positive reactions by scratch test are not included in this group.

†Includes those instances in which reaction was negative to either the frozen food or commercial extract when positive or doubtful with the other.

‡"Points" are based on a value of 0.5 for a doubtful positive and 1 to 4 for the positive, the value depending upon the degree of reaction—1 plus to 4 plus.

TABLE 5.—*Comparative incidence in 122 patients of positive and doubtful reactions to scratch tests with frozen raw materials and to scratch or intracutaneous tests with commercial extracts according to food groups*

	Reaction to Frozen —Raw Materials—		Reaction to Commercial ——Extracts——	
	Positive	Doubtful	Positive	Doubtful
Fish*	112	24	21	38
Crustaceans†	111	11	24	18
Molluscs‡	40	8	9	12
Cereals§	74	24	51	37
Beans¶	112	35	43	37
Nuts‖	57	31	26	19

*Anchovy, bass, cod, halibut, salmon, sardine, smelt, sole, tuna.
†Crab, lobster, shrimp.
‡Clam, oyster.
§Oat, barley, rye, wheat, corn, rice, buckwheat.
¶Lima bean, navy bean, soy bean, string bean, pea, peanut.
‖Hazelnut, chestnut, hickory nut, pecan, black walnut, English walnut, Brazil nut, pine nut.

by scratch test with frozen raw materials or by intracutaneous test with commercial extracts, or by both. Using the same system of grading, there were 236.5 points for the frozen raw food, as against 63.5 points for the commercial extracts—again indicating the predominantly larger size of the reactions for the former.

The results shown in Tables 3 and 4 indicate that frozen raw foods as skin-testing materials by the scratch method induce reactions of a larger size and in greater frequency than do the corresponding commercial extracts by the intracutaneous method.

Throughout the course of this study the authors were impressed by the incidence of positive reactions to commonly eaten foods of certain zoological and botanical groups. A comparative study was made of the occurrence of the reactions elicted by the scratch method with frozen material and with commercial extracts in the groups of fish, crustaceans, molluscs, cereals, legumes and nuts. As shown in Table 5, it is apparent that the frozen raw foods in these groups produced a significantly greater number of positive reactions than did the commercial extracts. Milk, egg, and potato, not included in Table 5, produced approximately the same number of reactions with the two different types of material.

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ACKNOWLEDGMENT

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Treatment Program for Mental Hospitals

FRANK F. TALLMAN, M.D., Los Angeles

• *Many thousands of patients in the "chronic" wards of mental hospitals have been considered unsuitable subjects for active treatment, on the assumption that little could be accomplished. However, a well integrated therapeutic program under skilled psychiatric direction and involving all personnel who will come in contact with the patient gives promise of returning a substantial number of patients to their homes. The program suggested in this paper also retards personality disorganization and refutes the current nihilistic attitude concerning the patient whose mental condition has been deemed to be chronic.*

THE "CONTINUED TREATMENT" WARDS in the mental hospitals of this country house many thousands of patients. They are all too frequently wards of regression rather than of treatment because the institutions do not have big enough staffs to provide for patients newly received and at the same time carry out an effective treatment program for the many thousands of chronic patients who use at least 75 per cent of the beds in any state hospital. Persons concerned with clinical programs have been hoping for many years to have enough psychiatrists, psychologists, social workers and rehabilitation personnel to make all the accepted treatment techniques available for all patients. But the hope has been in vain and hospital staffs have compromised by giving to new patients practically all their resources.

Yet patients who need continued treatment should not be deprived of effective help simply because the best help for them is not available. A program of satisfactory custody is not enough. Living in crowded quarters, eating monotonous food, being poorly groomed, wearing clothes almost identical to those of others in large groups and existing with little or no interesting activity programs — inevitably this accustoms a patient to a very low cultural and social life and thus provides a compelling opportunity for his already weakened ego to sink further into a state of disintegration, withdrawal and, finally, vegetation. Certainly the patient must feel emotionally abandoned and lost.

Such patients are in large measure the persons for whom acute treatment was unsuccessful and who, after years of living in a mental hospital, are described in the progress notes (sic!) as "flattened out" or "burned out" or "regressed" or "deteriorated." The author believes that much of this disintegration is directly due to the environment in the average "continued treatment" ward of our mental hospitals, and is in very considerable measure reversible. The professional leadership provided by those disciplines that are represented on the hospital staff but are in short supply must be utilized in a new and continuing framework to prevent this condition and to accomplish all possible rehabilitation of those patients already regressed because of environment and clinical neglect.

"Total push" is not a new concept. Great effort has gone into solving the problem of how to effectively treat the chronically ill patient.[1-7] However, what perhaps has been lacking in the past is the implementation of the techniques on all wards on a continuing basis. In other words, the research has been fruitful but its practical application in terms of maximum results with a minimum staff has not yet been forthcoming to a significant degree.

The suggestions that follow do not embrace anything particularly new to hospital psychiatry or institutional practice. They are an extension and increased emphasis upon present-day techniques that are well established and quite generally practiced in the acute areas of most hospitals. As applied to continued treatment or chronic areas they will be universally successful provided certain all-important and primary concepts are accepted and practiced. It is recognized that the professional staffs of the hospitals will need to spend many hours conferring and planning, checking, changing and improving, but it must be said that this process itself is highly educational and integrative for the staff, and that not only does the patient benefit immeasurably, but so does the staff, because it feels less frustrated, less overwhelmed and recognizes that its knowledge is radiated in such a way as to be useful to much larger numbers of patients than can be individually treated. Most important of all techniques in the approach to be described is *attitude*.

Leadership personnel of the hospital, and this

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Presented before the Section on Psychiatry and Neurology at the 82nd Annual Session of the California Medical Association, Los Angeles, May 24-28, 1953.

includes the nursing and supervising personnel, must be interested in providing treatment for *all* the patients and must feel certain that the policy of the hospital administration is patient-centered and founded upon the hope and belief that all the patients can be fruitfully treated. Treatability is the crux of the matter because much of the success of such a program depends upon a hopeful attitude. It may take a year or two in an average hospital to effect a demonstrable impact upon the patients' welfare because attitudes are not easily changed and old ways are cherished, and because the whole hospital must have a sense of high purpose, a dedication to the proposition that no patient can be considered hopeless until he is dead.

Assuming that the institutional leadership has determined upon a practical integrated hospital-wide treatment program, and has begun to instill the attitudes expressed above, what is the next step? It is to perfect integrated teamwork throughout the institution. Groups functioning together for specific purposes do not just happen because someone wills it. Group dynamics indicate that effective teams have to be built for a definite purpose and with an understood philosophy. This means working together, each member contributing the skills he has within a well-defined and understandable continuing treatment program.

While teamwork is in itself not a new concept, its planned and continuing use on each ward of most hospitals is still in its infancy. Doctors, psychologists and social workers have worked in the teamwork situation in mental hygiene clinics and in the acute section of mental hospitals for years, and it is an extension and amplification of this concept that is basic in a treatment program for chronic patients.

Early in the construction and operation of the team it is not uncommon to find that some members of one or another of the represented professional groups do not know how to separate from their skills those things that can be done by others who have not had similar educational opportunities. There are, in fact, many skills in dealing with patients that can be taught to others and used under adequate supervision and leadership and that will greatly benefit patients.

Sometimes a state of tension develops in the relationships of psychiatrists, psychologists and social workers who work together. Occasionally a psychiatrist will feel that a psychologist or social worker is attempting to do things that are within the province of the psychiatrist. The same attitude is frequent, of course, in all disciplines. Teamwork definitely diminishes these tensions. It is readily apparent to all that a tremendous job has to be done and that since there are few people to do it, there is a compelling need for communication of some skills to others who have had less professional training, but always under competent supervision.

THE PSYCHIATRIST AS TEAM TEACHER

It is imperative to extend the teamwork concept beyond the three disciplines just mentioned to include rehabilitation therapists, psychiatric nurses and psychiatric technicians. The last three disciplines mentioned are the real key to program success or failure. The psychiatric technicians are the least intensively trained of all those who come in contact with patients. They are, however, the ones who spend the most time with patients. Therefore, the technicians must become part of the team in fact as well as in name. To be effective in treatment, all these disciplines must derive their leadership and supervision from a competent psychiatrist, who, by virtue of his leadership, is able to disseminate his skills and knowledge to a remarkable extent. He must necessarily develop the art of communication to such a degree that he can be understood by all his teammates.

Most psychiatrists are capable of effective leadership of this type if they are motivated to develop it. The leader will soon find that in sharing his skills and encouraging the other members of the team to do likewise, he has become a first-rate teacher utilizing discussion and group conference.

Many psychiatric technicians have not had an opportunity to function in a treatment situation beyond the traditional role of "attendant"—a word whose very meaning implies passivity. They have worked in a world bounded by daily routine and lock and key. It admittedly takes time, patience, and enthusiasm to give this group the desire and the ability to work in a treatment team, but such is the alchemy of group dynamics that the reorientation is accomplished and new skills acquired. Many psychiatric technicians, however, because of the old role they have played and because of the fact that they have had little or no training over the years, feel inadequate to the new function expected of them and become anxious. This initial difficulty is quickly overcome by a good leader-psychiatrist. The psychiatric technician becomes pleased by his new role and subsequently becomes caught up by the positive and hopeful group attitude.

However, as time goes on he is required to learn and *do* more and more with patients, and there comes a point where he is in more acute conflict between his new functions and those that have been traditional. Somehow the ward looks a little less ship-shape, and there is a relaxed atmosphere about the place that tends to be disturbing. The patients are more difficult because it has been found that patients once almost immobile become active and

sometimes hostile as they begin to improve. It is at this point that leadership and teamwork are of crucial importance. Anxieties must be reduced, discouragement talked through, and patients' behavior interpreted. Once the psychiatric technician has gotten over this hurdle, he is indeed a team member.

Rehabilitation therapists (occupational therapists, recreational therapists, musical therapists and librarians) are for the most part accustomed to working with relatively small groups of patients in a somewhat structured program usually within the four walls of the same room. When asked to take their skills to very large numbers of patients and from ward to ward, many are worried at the prospect and need reassurance and teamwork training. They must learn, like other members of the treatment group, to adapt their techniques to large groups and to help the psychiatric technician acquire definite skills so that the activity program will be continuous. The rehabilitation therapist is of really great importance in the team because he is in large part the medium through which the patient is coaxed into closer touch with reality through remotivation and improved interpersonal relationship. The sequence of this approach is to help the patient acquire a relationship with one of the team personnel, then with another patient, and later with a group of patients, thus bringing the patient gradually into an ability to live once more in a social group. The structure and integrated motivation of the group are all-important.

The special training of psychiatric nurses makes them invaluable, not only in working with patients, but in the training of psychiatric technicians by setting the tone and giving more therapeutic meaning to the whole of the patient's ward life.

Special mention should be made of the part that psychiatric social workers play in the scheme of things. Many of the hospital personnel need greater understanding of the functions of a psychiatric social worker. A program of this type offers an excellent opportunity for interpretation. This professional group plays an important part in interpreting to patients' relatives what is being done for the patient so that indifference on the part of relatives will give way to a more hopeful and constructive attitude toward placement of the patient in a home. Many patients will need special placement, perhaps in a "family care home" or in a job. All this is extremely important in properly handling the end result of the program.

ON-THE-JOB TRAINING FOR TEAM

The training and integration of the treatment team are best undertaken on the job. This means the consideration of the needs of each patient on the ward. Talking about patients gives the leader excellent opportunity to encourage the expressing of attitudes directed toward individual patients and also provides the logical material for seminar discussions. The leader will be pleased at the rapidity of growth of constructive interest, particularly by the psychiatric technicians.

Activities that need to be devised are calculated to motivate the patient in the direction of or reintegration with, at best, community placement; at least, better hospital citizenship. The patient must be encouraged in every way possible to improve his interest and function in the small everyday business of living: Eating, shaving, bathing, dressing, care of the hair, shoe-care, attention to fingernails, and so forth. This list seems unimpressive, but it is astonishing what careful attention along these lines will do for the patient. An excellent article by Alfred W. Deibel, "Caring for the Mentally Ill in a Democratic Setting," described a habit-training approach which supports the grossly weakened ego and provides a vehicle for demonstrating to the patient that everyone is interested in him as a person, that improvement is possible and expected. Obviously the interest and the enthusiasm of the psychiatric technician in the individual patient is the key. Another very valuable technique is to get the patient to read to a group or to join in responsive reading. This reading technique takes a great deal of time and patience, but in a study conducted at the Stockton State Hospital it was found to be very effective.

Space does not permit a detailed account of each treatment method that can be utilized. Human ingenuity with strong motivation can be depended upon to provide all sorts of group activities. However, one approach that deserves special mention is one of the many group therapy techniques: The group is led by a patient (but supervised by a psychiatrist who sits in as consultant) in a discussion of general mental health and also in special problems presented by individual patients. A tape recorder is utilized and after the session is over the contents are played back to the group. The effect upon the patient of hearing what he has said is frequently remarkable. Curiously, he often develops some insight into the fact that his delusions and hallucinations sound very strange and unbelievable when he hears his own voice telling about them. His reactions to these symptoms tend to diminish in intensity.

At Stockton it was found wise to assign small groups of patients to individual technicians in order to be sure that all patients were being worked with. A ratio of one nursing service employee to every 2.1 patients was maintained in order to be sure that the program would not suffer because of inadequate ward personnel. It is believed that this heavy staffing can be considerably modified by further trial, and experiments are now being carried out at two

other hospitals in order to arrive at figures which will give maximum results at a minimum cost. Good results can be obtained even when dealing with patients who seemingly are pretty hopelessly ill. True, many of them will not leave the hospital, but for those who do, it is a great victory, and for those who do not, their stay in the hospital continues to be more profitable for themselves and often more helpful to the institution.

Obviously no institution can institute a program such as this in all wards at the same time. It has to begin by training a team on a ward or two and then by spreading gradually as the integrated team is able to circulate its attitudes and methods to other teams. The professional members of the team become members of several ward teams. It is very important, however, to recognize that this particular approach will only be successful if it becomes a continuing part of everyday hospital care. The methods sketched here, backed by an optimistic attitude, will improve the therapeutic approach even in situations where there is not sufficient staff to do the whole job.

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Expresses Views on Fee-Splitting Publicity

AN EXCELLENT, down-to-earth article, written by Dr. Stanley S. Truman, past-president of the American Academy of General Practice, and expressing his views on the furor and publicity attendant on the *Collier's* story of October 30, appears in the December issue of *GP*, the academy's publication. If you have access to this journal, Dr. Truman's article is well worth reading.

—A.M.A. Secretary's Letter

Hexamethonium and Hydralazine Hydrochloride

For Treatment of Hypertension

LAURENCE J. STUPPY, M.D., Los Angeles

• *Twenty-one patients have been treated for hypertension with oral doses of hexamethonium salts, Apresoline® or combinations of both. Three of 18 patients had good or excellent response to hexamethonium alone. Five of 13 treated with hexamethonium salts plus Apresoline had good or excellent results, as did 8 of 14 treated with Apresoline alone. The addition of very small doses of hexamethonium chloride to optimal doses of Apresoline improved the effect of the Apresoline in three patients. Postural hypotension and constipation due to hexamethonium were the most serious undesirable effects.*

TWENTY-ONE PATIENTS were treated for hypertension with oral administration of hexamethonium salts, hydralazine hydrochloride (Apresoline®) * or combinations of both at the outpatient clinic of Cedars of Lebanon Hospital in a period of 20 months.

Patients returned weekly to the clinic. At each visit a general medical examination was made, symptoms were recorded, dosage schedules were prescribed, and sufficient medicine was dispensed. Blood pressure was determined, and almost invariably was found to be lowest on standing, intermediate on sitting, and highest on lying down. Treatment increased these differences.

Patients were warned of the possible postural hypotensive effects of the hexamethonium salts. They were advised that if the medicines did not seem to agree with them they should stop treatment. If they reported postural hypotension they were advised to discontinue the drug for several doses and then resume it. Early experiences indicated that it was unwise for a patient to take a double dose to make up for a preceding dose which had been omitted, as this practice resulted several times in hypotensive syncope. Patients were instructed to keep their bowels moving daily by appropriate means.

During control periods patients took only sedatives, vitamins, laxatives or hormones. For a time placebo tablets were available, identical in appearance to tablets of hexamethonium chloride. For a period of several months patients under study were given trials of treatment with either aminophyllin, mannitol hexanitrate or potassium thiocyanate. These control periods permitted valuable comparison, and it was observed that (with the possible exception of potassium thiocyanate) the hexamethonium salts and Apresoline had far greater hypotensive effect than these other drugs or the placebos. In two patients such good results were obtained with potassium thiocyanate, supplemented later with small doses of hexamethonium chloride, that this combination was continued for them.

From Cardiac Clinic, Cedars of Lebanon Hospital, Los Angeles.

Presented as part of a Symposium on Hypotensive Drugs presented before the Section on General Medicine at the 82nd Annual Session of the California Medical Association, Los Angeles, May 24-28, 1952.

* Hexamethonium chloride and bromide used in this study was provided by Burroughs Wellcome & Co. (Hexameton®), by Warner-Chilcott Laboratories (Methium®), and by Ciba Pharmaceutical Products, Inc. (Esomid®). Apresoline® was provided by Ciba Pharmaceutical Products, Inc.

The first drug tried was hexamethonium bromide in 500 mg. tablets. Some patients had prompt reduction of blood pressure, but sudden postural hypotensive reactions were frequent. Subsequent experience indicated that these reactions were due in part to overdosage in single tablets. When hexamethonium chloride was administered in tablets of 250 mg., reactions were less frequent. In patients under treatment with hexamethonium bromide the content of bromide in the blood eventually rose to 50 to 100 mg. per 100 cc. The bromide salt was therefore discontinued as soon as the chloride was available. The chloride compound was somewhat less effective in reducing blood pressure than the bromide salt, probably because the sedative action of the bromide was not present.

Results from treatment with hexamethonium salts alone were not very satisfactory. They were tried in 18 cases. Only one patient was greatly helped, with reduction in blood pressure of 60-70 mm. systolic and 40-50 mm. diastolic (she had already undergone sympathectomy). Two others had reductions in blood pressure of 35 to 50 mm. systolic and 10 to 15 mm. diastolic. These three patients had been treated with 1,000 to 1,500 mg. of hexamethonium chloride daily. Seven others of the 18 had some reduction of blood pressure without excessive undesirable effects. Eight patients had poor response to even high doses or could not tolerate the drug. One of the greatest difficulties with the drug was the irregularity of response. Patients might have no

reduction of blood pressure one day, and then have severe postural hypotension the day following. When the drug was discontinued for 24 hours after hypotensive reactions, the blood pressure might promptly return to former high levels. Constipation was a distressing effect in every case treated with hexamethonium salts. Other complaints mentioned were nausea, dry mouth, increased prostatic obstruction and blurred vision.

Following the report of Schroeder,[6] study was made of the combined hypotensive effect of hexamethonium chloride and Apresoline. Treatment was begun with hexamethonium chloride, and then Apresoline was added. Apresoline had a stabilizing influence upon the effect of hexamethonium chloride when the two drugs were administered simultaneously, in that postural hypotension did not occur. Greater reduction in diastolic blood pressure was achieved with the combination. At first relatively large doses of hexamethonium and small doses of Apresoline were prescribed. Results in several cases were encouraging, and it appeared that with patience a satisfactory result would be obtained in more. However, constipation became increasingly severe. Patients smelled highly of feces, although they could not detect this. Large daily doses of laxatives were required. As the proportional dose of Apresoline was increased and that of hexamethonium decreased, results improved and constipation became less severe. Five of 13 patients had reductions in blood pressure of 40 to 60 mm. systolic and 25 to 40 mm. diastolic.

Apresoline alone has resulted in very satisfactory reductions in blood pressure.[7] Eight of 14 patients had reductions of 30 to 90 mm. systolic and 15 to 55 mm. diastolic without undesirable effects. Apresoline was given in doses of 10 mg. which were increased slowly for a daily total of 100 to 600 mg. Palpitation and slight tachycardia were the most frequent undesirable reactions; others were nausea, vomiting and headache. These were less serious if the dosage was increased slowly enough or was temporarily reduced. Three patients in whom blood pressure was well reduced by 400 to 600 mg. daily doses of Apresoline have had further improvement with added dosage of 10 to 250 mg. of hexamethonium chloride per day in a convenient liquid preparation (Esomid®) containing 250 mg. of the drug per teaspoon and prescribed by the drop.

Of the 21 patients in the group studied, 4 were younger than fifty years old, 8 were between fifty and sixty years of age, 7 between sixty and seventy, and 2 over seventy. There were four men and 17 women. Three men had unsatisfactory results from treatment. The fourth was one of three patients who responded well to treatment although sympathectomy had been done previously without satisfactory improvement.

TABLE 1.—*Results from treatment of 21 patients with hexamethonium, Apresoline,® and combined doses.*

Drugs Used	Number Cases—Results				
	Poor	Fair	Good	Excellent	Total
Hexamethonium	8	7	2	1	18
Hexamethonium and Apresoline*	5	3	3	2	13
Apresoline	5	1	4	4	14

* Hydralazine hydrochloride.

Uncomplicated benign essential hypertension was the diagnosis for 18 of the patients; of the other three, two had hypertension with unilateral renal disease and one had had nephrectomy for pyelonephritis. In none of the latter three were good results obtained, although renal failure did not occur. Of those patients with essential hypertension, two had had cerebrovascular thromboses, and both had good results from treatment.

Electrocardiographic tracings were normal for all patients or indicated some degree of left ventricular hypertrophy and strain. None of the patients had clinically recognized myocardial infarction or congestive heart failure. Only one patient took digitalis, perhaps not necessarily but because treatment had been established. No mercurial diuretics were required for any of these patients.

Better results were obtained with both Apresoline and hexamethonium, singly or in combination, when the salt intake was restricted. The extent of restriction would seem to be a matter of trial, although a fairly low limit should be maintained while optimum dosage is being determined.

Several patients complained of weakness on lowering of blood pressure but this feeling was relieved as treatment continued. Relief and subjective satisfaction were observed when reduction in pressure was reported to the patients.

It must be emphasized that all patients included in this study were treated as outpatients at a free clinic. Treatment was entirely by oral medication. Patients could be observed only at weekly or longer intervals, and there was not the same opportunity for patients to telephone the physician for additional instructions as in private practice. Therefore the results of treatment with hexamethonium in this study may be less favorable than results given in other reports which have dealt with the parenteral administration of hexamethonium, or with cases of patients hospitalized for treatment.[1,2,3-6,8,9] One exception is the report of Moyer and co-workers,[3] who treated 58 hypertensive outpatients, including 40 clinic patients, with oral administration of hexamethonium chloride and reported excellent results. Dosages of hexamethonium used by them were

higher on the average than those administered in this study, and more attention was given to the timing of doses throughout the day. The blood pressure of their patients was checked by nurses before and after each visit with the physician. Patients may have felt greater confidence in the treatment program because of the closer supervision of an organized medical team. The unfavorable results with hexamethonium treatment reported in that study were due not to ineffectiveness of hexamethonium as a hypotensive agent but to undesirable side reactions and postural hypotension. In contrast to the experience of Moyer and co-workers with Apresoline, results with Apresoline in the study here reported were favorable and comparable to those reported by Schroeder.

Only after continued trial can it be determined whether Apresoline and hexamethonium can reduce the incidence of diseases of the heart and the blood vessels. If reduction of blood pressure reduces vascular complications and prolongs life, then some discomfort from side effects, including constipation, should be acceptable to the patients.

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Rentals from Film Library Set Record

THE A.M.A. COMMITTEE on Medical Motion Pictures reports that it loaned 2,273 films to medical societies, medical schools, hospitals and other scientific groups during 1953. This represents an increase of 185 over the previous year and a 45 per cent increase over 1951.

—A.M.A. Secretary's Letter

Beyond the Surgeon's Skill

ROGER W. BARNES, M.D., Los Angeles

• The scientific attainments of medical science have advanced greatly in this generation. The art of the practice of medicine has not kept pace. The kindly spirit, unselfish service, and spiritual uplift which were characteristic of most physicians in the "horse-and-buggy days" are needed more today than they were a generation ago. A combination of medical science and spiritual counseling will do much to relieve the sufferings of mind and body. The personal physician-patient relationship and the building up of the patient's confidence in his physician are a most important aspect of the physician's duty. A belief in God and a knowledge of the availability of help from above is of great benefit to both physician and patient.

COMPARED WITH THAT of present day surgeons, the surgical skill of our grandfathers was crude indeed. The advances of scientific medicine during the last half century have put into our hands techniques, drugs and equipment which, when properly used, save hundreds of lives and relieve untold suffering.

But has the art of medical practice kept pace with the scientific attainments of the profession? How many practitioners will make a house call at 3 a.m. regardless of the patient's ability to pay? Where is the kindly physician who helps solve the many non-medical problems of those who look to him for help? How many physicians today minister to the spiritual as well as the physical needs of patients?

In our intense desire to be scientifically accurate and to apply the knowledge and skill we possess, perhaps we concentrate too much on a definite disease which requires a specific treatment, and too often forget that the disease exists in a sick human being who needs sympathy, encouragement and spiritual uplift.

In the days of the "horse and buggy doctor" there was an intimate physician-patient relationship. The family doctor was a friend of everyone in the community; he was admired, loved and respected. He would spend hours on the road, only to find that his patient was a hysterical, love-sick girl whose boyfriend had married someone else. Instead of berating her for her foolishness, he would convince her how fortunate she was not to have married such a fellow —and then make no charge because he gave her no medical treatment. The physician of our grandfather's time saw more hopeless cases than we do, for he had no means by which many seriously ill patients could be saved. But he gave them hope of a future life, where the sorrows and tragedies of this world would be forever forgotten; he comforted members of the family who were left, and gave them the hope of seeing their loved ones in a better land.

There is much discussion today about preserving the personal physician-patient relationship. The regimentation of physicians and of patients into an organization for providing medical care tends to disrupt the personal contact and to inhibit the trust which every patient should have in his physician. Even in these circumstances, however, there can and should be a personal responsibility assumed by each physician for the welfare of his patient. When a physician recognizes and accepts this responsibility, he will instill into his patients that confidence which is so essential to successful treatment. In this age, when so large a proportion of the populace is enrolled in a company medical plan, a prepaid medical insurance organization or some other arrangement for group medical care, it is more important than ever that a physician show a keen interest in the welfare of his patient.

Specialization of medical care is another modern development which tends to impair the personal physician-patient relationship. When a patient is sent from one specialist to another, acquaintance usually is short and the generation of confidence difficult. The referring physician can help a great deal by his own expression of faith in the specialist, but the most potent factor in establishing a confidential relationship is the attitude of the specialist himself. It is therefore most important that the specialist not only demonstrate his knowledge of and ability to handle the patient's disease, but also that he have a genuine interest in the patient's welfare.

Religion and medicine have always been closely associated. God was this earth's first surgeon and

From the Department of Surgery (Urology), School of Medicine, College of Medical Evangelists.

Chairman's Address: Presented before the Section on Urology at the 82nd Annual Session of the California Medical Association, Los Angeles, May 24-28, 1953.

anesthetist: "And the Lord God caused a deep sleep to fall upon Adam, and he slept; and he took one of his ribs and closed up the flesh instead thereof; and the rib which the Lord God had taken from man, made he a woman and brought her unto the man." (Genesis 2:21, 22.)

It was not until many centuries later that patients were anesthetized to facilitate surgical operations, and science is just beginning to discover that specific tissues can be made to produce or grow into tissues of a different kind. God may have used natural laws which are still in force today to make the first woman from the rib of Adam.

God gave Moses instructions regarding the isolation and observation of patients who were suspected of having a contagious disease. There were regulations relating to the burning of the clothes and the cleaning of the houses of patients who had a proven contagious disease, and many other laws of sanitation and hygiene that are identical to those used today. Priests administered these public health laws in Moses' time.

Some of the rules and regulations by which the physician-priests of Greece were guided in their care of the sick were scientific while others were based upon superstition and mysticism. We criticize the Egyptian physician-priests for their use of charms, amulets, prayers and magic, forgetting that they had superstitions to deal with. Is not the modern patient who is under continual nervous tension, who is introspective and who has functional rather than organic disorders, similar in many respects to the superstitious one of ancient Egypt and Greece?

The application of true religion is the best method of overcoming functional disorders. A fundamental faith in God removes frustration, worry, fear, resentment and hate—the etiologic factors in diseases that have no organic cause. A person whose faith is firm believes that "all things work together for good to them that love the Lord." Applying this belief to his everyday life gives him hope surmounting frustration, comfort prevailing over worry, courage mastering fear, forgiveness above resentment, and love that banishes hate. From a firm belief in the guiding hand of Providence comes comfort in any calamity and a sense of acquiescence in every disappointment.

True religion also engenders a desire to help others. Jesus said, "Inasmuch as ye have done it to one of the least of these, ye have done it unto Me." There is no room for self pity in the person who follows the golden rule, doing unto others as he would wish men to do to him. Therefore true religion and functional disease are incompatible. However, many times persons who are nominally religious, who accept God as a supreme being, and who really believe they are keeping His laws, do have functional disorders; but when their innermost motives and emotions are analyzed, a deviation from the teachings of Jesus can be demonstrated. Sir William Osler, in speaking of religion said, "It will not raise the dead; it will not put in a new eye or knit a bone; but the healing power of belief has great value when carefully applied in suitable cases."

The physician who has a belief in an overruling Providence is the one best suited to treat the entire patient. There is often a functional overlay in the presence of an organic disease and best results are obtained by treating both. A patient who is mentally disturbed, tense and restless has a more stormy convalescence after operation than one who is peaceful and relaxed. A sick person who can believe there is some good reason for his being ill, will recover more rapidly than one who frets and worries, continually thinking of the malicious fate that he blames for all his trouble. A physician who emanates courage may by words and actions instill comfort and optimism into his patient. His own faith in an overruling and beneficent Providence may be so evident that the patient becomes quiet and trusting.

Faith in God and belief in a future life in a heavenly home give comfort to the patient who knows he has a disease that will probably result in death. The mental anguish of some patients who are about to enter into the unknown is much greater than their physical pain. Francis Voltaire, the noted French infidel, when he knew he was about to die, said to his physician: "I am abandoned by God and man! I will give you half of what I am worth if you will give me six months of life. Then I shall go to hell, and you will go with me." Thomas Paine, an American infidel, said these words when he was on his deathbed: "O God, what have I done to suffer so much? But there is no God! But if there should be, what will become of me hereafter? Stay with me for God's sake! Send even a child to stay with me, for it is hell to be alone! If ever the devil had an agent, I have been that one." In contrast to these valedictories of those who had no belief in God are the last words of Dwight L. Moody, the noted evangelist, who said: "I see earth receding. Heaven is opening. God is calling." Adoniram Judson, American missionary to Burma, died at sea. When he knew the end was near, he said: "I go with the gladness of a boy bounding away from school. I feel so strong in Christ." The godly physician can do much to alleviate the mental suffering of those who are about to die.

A belief in God is beneficial to the physician him-

self as well as to his patient. It will help him to think clearly and to make the right decisions; it will give him skill and good judgment. A silent prayer at a critical moment in a difficult case brings help from above; new courage and the ability to think more clearly are the immediate results.

Dwight Eisenhower recognized the value of religion and dependence upon a Higher Power in the following words: "This is what I found out about religion. It gives you courage to make the decisions you must make in a crisis and then the confidence to leave the result to a Higher Power. Only by trust in God can a man carrying responsibilities find repose."

A surgeon cannot heal the wounds he makes. The results of the surgical operations he performs are based upon the divine law of *vis conservatrix naturae*. Upon this law he confidently relies; and he is, therefore, whether he recognizes it or not, dependent upon superhuman powers to give the results he anticipates. A recognition of this higher power, and a request for its aid is expressed in *A Surgeon's Prayer*, by Herbert Parker—

Dear God!
These strong gloved fingers
Which I flex—
This human hand
Which holds the knife,
Sterile now and steady—
Need Thy guiding skill
To help another life.
Bless now this patient—
Thine and mine—
Who, under Thee, entrusts to me
A precious life!
God of the surgeon's tireless strength,
The surgeon's finite skill,
Grant that I may guided be
To do Thy will.

AMEN.

California MEDICINE

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For information on preparation of manuscript, see advertising page 2

EDITORIAL

Health and Welfare Plans

SEVERAL YEARS BACK John L. Lewis, head of the United Mine Workers, hit upon a novel method of increasing wages without affecting the take-home pay of his union members. His solution was the imposition on the employers of a ten-cents-a-ton levy to provide a "health and welfare fund" for the union members. The union would then administer that fund.

Today the quotation marks may be removed from this phrase; such funds are now so common in labor negotiations that they are accepted as the general rule.

These funds have two benefits. First, they give the union member an added benefit in the form of insured coverage for his hospital, medical or surgical care, or life insurance needs. Second, the employer's contribution is not considered taxable wages to the employee, and Uncle Sam does not assess income taxes against the cash value of such benefits. Thus an indirect wage increase is negotiated.

The growth of these plans from the meager beginnings of Mr. Lewis' program has been remarkable. Within the space of a few years, labor has latched onto this means of gaining added benefits for its members and employers in non-organized industries have embraced this method of improving employee relationships.

Today the pattern is for the employer to meet the cost of health and welfare plans entirely out of his own pocket, with the employee assuming no financial obligation.

The extent to which these plans have grown is indicated in a report made several months ago to the Western Conference of Employers Associations. This report is both analytical and critical; regardless of its various findings, it focuses attention on the overall problem faced by employers, whether from a selfish interest or an interest in the well-being of their employees.

One of the more startling findings of this report is the fact that more than 90 per cent of the office workers in the San Francisco Bay area are covered by some sort of group welfare plan. As of two years ago, nearly seven and one-half million persons in California were covered by such plans.

In the short space of four years, on a nationwide basis, temporary disability coverage increased 90 per cent. Hospital coverage went up 60 per cent in the same period and surgical expense coverage gained 86 per cent. Medical expense coverage lagged with a gain of only 32 per cent. These figures cover the 1948-1951 period, and undoubtedly further increases have taken place in the past two years.

The Bureau of Labor Statistics showed an increase from 1,500,000 workers in 1947 to 7,500,000 in 1950 covered by some form of negotiated group welfare plan.

The trend in number of employees covered by these plans is matched by the trend in benefits. The number covered for life insurance has increased steadily, as has the amount of insurance provided. The allowances for surgical procedures have likewise gone up, both as to numbers covered and allowances. The most common surgical ceiling two years ago was on a $300 schedule; today this figure is undergoing upward revision.

Employers who in 1949 were contributing three or four cents an hour to health and welfare plans are now paying five to seven cents or more. Again the trend is upward. From 1947 to 1950 the contributions of employers were more than doubled.

Along with these increases has come some rather sorry competition among carriers. The lure of employer-financed plans has led to various evils, among them underbidding by insurance companies. One

employee group has gone through two carriers and three rates in three years and faces another increase.

One large employer has used seven different carriers in ten years. One group of companies has had its insurance rates doubled. A large group of employees has been forced into self-insurance because its loss ratio was so high that no underwriter will now take on its plan.

In terms of administration there is also a sad story, running all the way from straight misappropriation of funds to sloppy administration and top-heavy management costs. In some cases there appears evidence of kickbacks with the acquiescence, if not exactly the approval, of the insurance companies. The report in this regard was frankly critical of management in not assuming a more active participation in the management of these funds, once they are created. It found too prevalent the attitude that once management had agreed to create the fund, it washed its hands of the administration of benefits and money. The report called for independent audits, actuarial soundness and active participation in the management of such funds by business management.

What has all of this to do with the practice of medicine? Simply this: Health and welfare funds generally cover at least part of the field of medical and surgical practice and are bound to exert an influence on the profession. Rumblings are already evident of dissatisfaction by both employers and employees with the treatment, either professional or economic, of welfare plan members by physicians.

Such dissatisfaction might lead to the imposition of ready-made fee schedules on physicians. It might take the form of a move to recruit panels of physicians to serve members of particular welfare fund groups. Either management or labor might undertake these steps. It might lead to the establishment of "health centers," staffed by paid physicians, as a means of making costs meet income.

Medicine has already heard these rumblings. In some places a start has been made in finding an answer to criticisms arising from health and welfare programs. In some places the problem has been allowed to linger and become magnified until even drastic measures will not solve it to the satisfaction of physicians.

It is certain that with the growth of health and welfare plans, additional groups are springing into being every day, each representing a pressure group. This, in turn, increases the overall pressure on the profession by bringing into play not only individuals but organized groups with capable leaders, ready to consider almost any alternative to meet the economic aspects of a given situation.

Medicine is following the time-honored formula of assessing every suggestion before attempting to make any specific therapy available for general consumption. In this instance, as in the race against certain diseases, time is of the essence. Ways to prevent or cure must be found before too many casualties occur.

California MEDICAL ASSOCIATION

NOTICES & REPORTS

Executive Committee Minutes

Tentative Draft: Minutes of the 239th Meeting of the Executive Committee of the California Medical Association, at San Francisco, December 23, 1953.

The meeting was called to order by Chairman Lum in Room 214 of the Sir Francis Drake Hotel, San Francisco, at 6:15 p.m., Wednesday, December 23, 1953.

Roll Call:

Present were President Green, President-Elect Morrison, Speaker Charnock, Council Chairman Shipman, Auditing Committee Chairman Lum, Secretary Daniels, Editor Wilbur. A quorum present and acting.

Present by invitation were legal counsel Hassard and Messrs. Hunton, Clancy and Pettis of C.M.A. staff.

1. *Audio-Digest Foundation:*

Mr. Hassard outlined the proposed articles of incorporation of Audio-Digest Foundation. This would be a non-profit corporation, wholly owned by the California Medical Association, which, after payment of taxes, would devote any net profits to the cause of medical education or other causes encompassed in the Constitution of the Association. Members of the corporation would at all times be members of the Council of the California Medical Association; trustees of the corporation would at all times be the voting members of the Executive Committee of the California Medical Association.

On motion duly made and seconded, the proposed incorporation was approved.

On motion duly made and seconded, it was voted that the chairman of the Executive Committee of the Association be at all times the president of Audio-Digest Foundation and that the secretary of the Association be at all times the secretary of the Foundation.

On motion duly made and seconded, it was voted to appoint Mr. Jerry L. Pettis as business manager of Audio-Digest Foundation.

On motion duly made and seconded, it was voted to offer to Dr. Edward C. Rosenow, Jr., the position of editor-in-chief of Audio-Digest Foundation.

On motion duly made and seconded, it was voted to advance to Audio-Digest Foundation the sum of $10,000 as a non-interest-bearing loan, this sum to come out of a maximum loan of $20,000 previously authorized by the Council.

On motion duly made and seconded, it was voted to authorize the business manager, the editor, the speaker of the C.M.A. House of Delegates and the president-elect of the C.M.A. to sign voucher checks for Audio-Digest Foundation, two signatures to be required on all voucher checks; to authorize one signature on petty cash checks in amounts of not more than $100; all signatories to be placed under surety bond for a maximum of $25,000.

On motion duly made and seconded, it was voted to adopt corporate bank resolutions authorizing the

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SIDNEY J. SHIPMAN, M.D. . . . . Council Chairman
ALBERT C. DANIELS, M.D. . . . . Secretary-Treasurer
DONALD D. LUM, M.D. . Chairman, Executive Committee
DWIGHT L. WILBUR, M.D. . . . . Editor
JOHN HUNTON . . . . . Executive Secretary
General Office, 450 Sutter Street, San Francisco 8
ED CLANCY . . . . . Director of Public Relations
Southern California Office:
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establishment of bank accounts under terms of the required signatures noted above.

On motion duly made and seconded, it was voted to authorize the president and the secretary to execute a contract with Mr. Jerry L. Pettis, under which he would receive 10 per cent of the net profits of Audio-Digest Foundation, up to a maximum income to him of $25,000 annually, for a period of five years, such contract to be subject to review and renewal at five-year intervals for a maximum of seventeen (17) years.

2. *Basic Science Act:*

In accordance with a resolution adopted by the House of Delegates in May 1953, President Green, with the approval of the Executive Committee, named the members of the Executive Committee as members of a committee to investigate the possibilities and the advisability of considering legislation to establish a Basic Science Act in California.

There being no further business to come before it, the meeting was adjourned at 9:40 p.m.

DONALD D. LUM, M.D., *Chairman*
ALBERT C. DANIELS, M.D., *Secretary*

240th Meeting

Tentative Draft: Minutes of the 240th Meeting of the Executive Committee of the California Medical Association, San Francisco, January 13, 1954.

The meeting was called to order by Chairman Lum in Room 221 of the Sir Francis Drake Hotel, San Francisco, at 5:15 p.m., Wednesday, January 13, 1954.

Roll Call:

Present were President Green, President-elect Morrison, Council Chairman Shipman, Speaker Charnock, Auditing Committee Chairman Lum and Editor Wilbur. Absent for cause, Secretary Daniels, ex-officio.

Present by invitation were Messrs. Hunton, Thomas and Gillette of C.M.A. staff, Dr. Karl M. Bowman of the Langley Porter Clinic, Dr. Charles E. Smith, dean of the School of Public Health of University of California, Dr. James C. Malcolm, health officer of Alameda County and president of the California Conference of Local Health Officers, and Drs. Leslie Magoon, Ralph Teall and Henry Gibbons III, members of the executive committee of the Medical Services Commission.

1. *Psychiatric Center for UCLA:*

Dr. Bowman described the Langley Porter Clinic in San Francisco as a 97-bed hospital which serves as a teaching center for medical students, nurses, psychiatric social workers and others. Its physical property is separate from the medical school of University of California, although it functions as a part of that school, among other functions.

Dr. Bowman then described the psychiatric center envisioned for the medical school at University of California at Los Angeles. This is planned as a 257-bed institution, to be housed in a separate building but connected by a passageway with the UCLA Medical School hospital and utilizing the food, laundry, heating and other central services of that hospital. It would provide beds for treating adult, adolescent and juvenile cases and would provide teaching material for training physicians, psychiatrists and all allied technical personnel.

The State Department of Mental Hygiene, as an eligible state department to build such a structure, has agreed to build this hospital and operate it under a joint arrangement with the medical school if funds for its construction are provided. Dr. Norman Q. Brill has been selected as medical director and there are two other professors of psychiatry on the school staff.

Dr. Bowman stated that a budget request of approximately $5,000,000 had been made by the Department of Mental Hygiene for construction of this proposed hospital. This request has apparently been approved by the Governor and the Finance Department but Dr. Bowman feared that an economy movement in the Legislature might endanger this request. He asked the Association to use its influence in retaining this item in the budget, which is subject to approval by the Legislature in its March 1954 session.

On motion duly made and seconded, it was voted to ask Dr. Dwight H. Murray, legislative chairman, to seek further information on this item, so that the Council may consider it at its next meeting.

2. *Training of Public Health Officers:*

Dr. Charles E. Smith discussed the need of training additional public health officers. One year of academic training is required for this purpose and in past years most of those in training have been supported by fellowships from trust funds. Such fellowships are now disappearing and, while there are promising men desirous of undertaking this training, funds are needed for their support during one academic year of nine months. The State Board of Health has heretofore had a fund of about $140,000 annually to provide maintenance for these trainees and their families during the academic year; allowances of not more than $400 a month, depending on family and other obligations, have been given these trainees from this fund. The budget allowance has now been discontinued.

Not only public health physicians but technicians, nurses and sanitarians have been aided by this fund.

At present there are 70 students at the School of Public Health in Berkeley, 12 of them receiving assistance from the training fund.

Dr. Smith asked that the Association support the request of the State Board of Health to restore this item to the state budget. It was agreed to place this request before the Council at its next meeting.

3. *Public Policy and Legislation:*

Dr. Green presented a resolution which has been adopted by several state medical associations in neighboring states, relative to action by the American Medical Association on proposals for extension of the federal Social Security Act to be made to the Congress. On motion duly made and seconded, it was voted to take no action on this resolution at this time.

4. *Medical Services Commission:*

(a) Discussion was held on several tape recordings proposed for presentation before county medical societies. On motion duly made and seconded, it was voted to approve a tape entitled "Doctors Speak to Doctors" and an accompanying tape or oral presentation by Mr. Rollen Waterson. If desired, the third tape, entitled "Usual Fee Indemnity Plan," narrated by Dr. Ralph Teall, is to follow the others.

(b) On motion duly made and seconded, it was voted to accept with regret the resignation of Dr. Edward C. Rosenow, Jr., as a member of the Medical Services Commission and to express to him the sincere thanks of the Association for his valuable services.

Adjournment:

There being no further business to come before it, the meeting adjourned at 10:30.

DONALD D. LUM, M.D., *Chairman*
DWIGHT L. WILBUR, *Acting Secretary*

Medical Dates Bulletin

THIS BULLETIN of the dates of postgraduate education assemblies and the meetings of various medical organizations in California is supplied by the Committee on Postgraduate Activities of the California Medical Association.

MARCH

Alumni Committee Children's Hospital, one-day seminar, San Francisco, March 20.

California Medical Association Institute for San Joaquin Valley Counties, Fresno, March 4-5.

California Medical Association Institute for West Coast Counties, Santa Barbara, March 18-19.

APRIL

California Medical Association Institute for Sacramento Valley Counties, Sacramento, April 15-16.

Alumni Committee, Children's Hospital, one-day seminar, San Francisco, April 24.

California Medical Association Institute for Southern Counties, Palm Springs, April 22-23.

MAY

California Medical Association Convention, Los Angeles, May 9-13.

Clifford Sweet Lectureship, Children's Hospital of the East Bay, Oakland, May 26-28.

JUNE

American Medical Association, Annual Session, 1954, San Francisco, June 21-25.

American Geriatrics Society, San Francisco, June 17-19.

OCTOBER

California Society of Internal Medicine, Yosemite National Park, October 2.

California Academy of General Practice, Sixth Annual Scientific Assembly, Los Angeles, October 24, 25, 26, 27.

George Henry Kress

THE LONG AND DISTINGUISHED CAREER of Dr. George Henry Kress came to its end on January 18, 1954. He retained his vigorous health, his boundless energy and his keen and active mentality until he was stricken by coronary artery thrombosis three days before he died at the California Lutheran Hospital in Los Angeles where he had been a staff member for fifty years.

Dr. Kress was born on December 23, 1874, in Cincinnati, Ohio, of German descent. He attended Hughes High School and the University of Ohio where he received the Bachelor of Science degree in 1896. His medical degree was conferred by the medical department of the University of Cincinnati in 1899. He was resident physician at the Good Samaritan Hospital in Cincinnati in 1899 and 1900 and assistant surgeon at the National Soldiers' Home at Dayton, Ohio, from 1900 to 1903.

On June 16, 1903, during a driving rainstorm, he was married to Miss Elizabeth Hamilton Hill whom he met at the University of Cincinnati. Although the rain disrupted plans for an outdoor reception and drove the guests indoors for champagne and wedding cake, the weeping skies were far from prophetic. George and his charming Betty, who survives him, were a devoted couple with a host of friends. They observed their golden wedding anniversary last June.

Dr. Kress and his bride moved to Los Angeles in June 1903, soon after the ceremony. He entered general practice, but devoted a large part of his time to tuberculosis, both to improving the care given to hospitalized patients and to the preventive aspects of the disease. In this work he was associated with Dr. Frank M. Pottenger, Sr., another distinguished pioneer in the field of tuberculosis who is still actively engaged in practice. For his work and writings on tuberculosis, Dr. Kress was awarded gold and silver medals in 1908 by the International Tuberculosis Congress. He was president of both the Los Angeles and California Associations for the Study and Prevention of Tuberculosis and for several years edited the latter's Bulletin.

Throughout his life Dr. Kress was deeply interested in medical education. In 1905 he became secretary to the faculty of the University of Southern California School of Medicine and was also professor of hygiene. He continued in this capacity when the school became the Los Angeles Department of the College of Medicine of the University of California. He served as dean from 1914 to 1938. At the time of his death, he was the only surviving trustee of its holding corporation. Through his efforts the Barlow Medical Library was transferred to the Los Angeles County Medical Association. In 1910 he published a volume entitled "The Medical Profession of Southern California."

Dr. Kress became interested in ophthalmology and otolaryngology and for a number of years was associated with the late H. Bert Ellis, M.D., a distinguished surgeon who had contributed greatly to the welfare of the county, state and national medical organizations. Perhaps influenced by Dr. Ellis, Dr. Kress accepted the secretaryship of the Los Angeles County Medical Association in 1908. He found it a stagnant and listless organization. When he resigned the office in 1918, the society had become vigorous, well organized and well on the way to its present size, efficiency and usefulness. He was an Army medical officer in World War I.

In 1907 he was elected to the Council of the California Medical Association, on which he served for 39 years. He became president in 1916 and at the time of his death was the senior living past president. Much later, in 1938, he was elected president of the Los Angeles County Medical Association. He resigned this post in mid-year to become secretary of the California Medical Association. He served in this capacity until 1946, when he was chosen Honorary Historian and requested to write a history of the organization. He was actively occupied with this task at the time of his death. He had compiled a large amount of material which will require editing and final writing.

The tireless energy and enthusiasm which Dr. Kress brought to every task he undertook was one of his characteristics. He was chairman in 1910 of the California State Tuberculosis Commission which made possible a state bureau of tuberculosis and state subsidies to county hospitals. He served many years as a member of the California State Board of Health under two governors.

He was editor of *California and Western Medicine* from 1927 to 1946, and from 1946 on he was editor emeritus of CALIFORNIA MEDICINE. He was vice-president, 1919-1920, of the American Medical Association and a member of its House of Delegates. For more than 25 years he was a member of the executive board of the Los Angeles County Hospital where he played no small part in keeping the institution's standards at an enviable level and in designing the acute unit which was completed in 1933. He served about 35 years as a member of the attending staff, at first in tuberculosis and later in the department of ophthalmology. He was professor and professor emeritus of ophthalmology at the College of Medical Evangelists.

For these and his many other contributions to human welfare, to medical art and science, to the dissemination of medical knowledge to profession and public alike, and to medical organizations, he was made an honorary member of the Los Angeles County Medical Association in 1947.

One of Dr. Kress' great interests was his fraternity, Sigma Alpha Epsilon, to which he rendered such distinguished service throughout his lifetime that in 1946 he was awarded its highest honor—election to the office of Honorary Supreme Eminent Archon. His medical fraternity was Phi Rho Sigma, whose official journal he had edited in recent years. He was a member of the University Club, Authors, Uplifters, Scribes, and Historical Society, all of Los Angeles, and of the Family in San Francisco. He was a Mason and member of the Scottish Rite and Shrine.

Dr. Kress loved life and lived it with all of his abundant vigor. He was never too busy to lend a helping hand to any worthy cause or to oppose any bad one. He sought no honors and if he accepted any office it was only that he might thereby accomplish some objective. His cordiality and his genial good nature will be remembered as long as any live who knew him. Humanitarian, consecrated physician and loyal friend—this old world has need of many like George Kress.

E. T. REMMEN, M.D.

In Memoriam

ASH, RACHEL L. Died in San Francisco, November 22, 1953, aged 86. Graduate of the University of California Medical School, Berkeley-San Francisco, 1899. Licensed in California in 1900. Doctor Ash was a retired member of the San Francisco Medical Society.

✤

BAIRD, CHARLES G. Died in San Francisco, December 4, 1953, aged 67. Graduate of St. Louis University School of Medicine, Missouri, 1912. Licensed in California in 1927. Doctor Baird was an associate member of the San Francisco Medical Society.

✤

BOOTH, WILLIAM T. Died January 23, 1954, aged 48, in an airplane crash near Bonita, California. Graduate of Emory University School of Medicine, Emory University, Georgia, 1930. Licensed in California in 1937. Doctor Booth was a member of the San Diego County Medical Society.

✤

BROWNFIELD, WILLIAM H. Died in Los Angeles, February 1, 1954, aged 64. Graduate of St. Louis University School of Medicine, Missouri, 1913. Licensed in California in 1914. Doctor Brownfield was a member of the Los Angeles County Medical Association.

✤

CAMERON, VIRGIL L. Died in Los Angeles, January 1, 1954, aged 52. Graduate of the University of Oregon Medical School, Portland, 1927. Licensed in California in 1933. Doctor Cameron was a member of the Los Angeles County Medical Association.

✤

GERMANN, ALBERT C. Died in Los Angeles, January 29, 1954, aged 69. Graduate of the College of Physicians and Surgeons, Los Angeles, 1915. Licensed in California in 1915. Doctor Germann was a member of the Los Angeles County Medical Association.

✤

ROSBURG, AUGUST H. Died in San Francisco, November 30, 1953, aged 71. Graduate of Rush Medical College, Chicago, Illinois, 1912. Licensed in California in 1912. Doctor Rosburg was a member of the San Francisco Medical Society.

NEWS & NOTES

NATIONAL • STATE • COUNTY

LOS ANGELES

The spring session of the **American Academy of Pediatrics** will be held at the Biltmore Hotel, Los Angeles, April 5-7, 1954.

* * *

At a recent meeting of the **Los Angeles Society of Allergy** the following officers were elected: president, Dr. Ben C. Eisenberg, Beverly Hills; vice-president, Dr. Walter R. MacLaren, Pasadena; secretary-treasurer, Dr. A. M. Targow, Los Angeles.

* * *

Dr. W. G. Durnin was installed as president of the **Long Beach Branch of the Los Angeles County Medical Association** at a dinner meeting of the organization in January. He succeeded Dr. Malcolm Todd. Dr. Stirling Pillsbury was installed as vice-president and Dr. John C. Lundgren as secretary-treasurer.

* * *

Dr. Cyril B. Courville, head of the neurology department of the College of Medical Evangelists, has been granted $9,350 by the United Cerebral Palsy Association of Los Angeles County for support of continuing research on the effect on infants of anoxia in the prenatal period or during delivery.

* * *

Reappointment of **Dr. Justin J. Stein** to the California State Board of Medical Examiners for a term ending January 15, 1958, was announced recently by Governor Goodwin Knight.

* * *

Certificates in recognition of **five years of outstanding service** to the American Cancer Society were awarded to four Los Angeles physicians—Drs. Elmer Belt, E. M. Butt, George S. Sharp and E. D. Kremers—at the regular quarterly meeting of directors of the local branch of the society in January.

MARIN

Dr. Leo L. Stanley was elected president of the Marin County Medical Society at a recent meeting of the organization, succeeding Dr. Edward Campion. Dr. Carroll A. Russell was elected president-elect, and Dr. William B. Smith was reelected secretary-treasurer.

At the regular monthly meeting of the society held on January 28 at the Meadow Club, Fairfax, the speakers of the evening were Marin County District Attorney W. O. Weissich, Coroner Frank Keaton and Dr. John H. Manwaring. The subject was "Function of the Coroner" from legal, medical, and pathological aspects. Panel discussion followed in response to questions from the floor.

ORANGE

Dr. A. Norton Donaldson of Santa Ana was installed as president of the Orange County Medical Association at the first meeting in 1954. He succeeded Dr. Edmund F. Cain of Anaheim. Dr. Ralph E. White of Santa Ana became vice-president, and Dr. Chad M. Harwood was reelected secretary-treasurer.

SAN FRANCISCO

Dr. Byron E. Hall, associate clinical professor of medicine at Stanford University School of Medicine, has been awarded a grant of $17,460 by the United States Public Health Service to support continuation of research on the effects of chemicals on cell metabolism.

* * *

The annual meeting of the **American Gastroenterological Association** will be held June 18-19 at the Mark Hopkins Hotel, San Francisco. Interested physicians are invited to attend. Further information concerning the meeting may be obtained from the secretary of the association, Dr. H. Marvin Pollard, University Hospital, Ann Arbor, Michigan.

* * *

Election of Dr. Lelland G. Rather, associate professor of pathology at Stanford University School of Medicine, to the editorship of the **Stanford Medical Bulletin** was announced recently by Dr. Windsor Cutting, dean of the medical school. The former editor, Dr. William C. Kuzell, had resigned a short time before because of increasing demands upon his time for other professional services. Dr. Rather subsequently appointed Dr. William H. Carnes and Dr. Robert N. Hultgren as associate editors.

* * *

Two new fellowships at the Veterans Administration Hospital, San Francisco, each with a stipend of $300 a month, will begin July 1, 1954, according to recent announcement by Dr. Forrest M. Willett, chief of medical service at the hospital. One, a fellowship in cardiology, is supplied by the San Mateo County Heart Association. The other, in hematology, is under the auspices of Stanford School of Medicine and the National Institute of Health.

Appointments are to be made for one year and will be renewable for one additional year. Further information may be obtained by writing to Dr. Willett at the hospital, 42nd Avenue and Clement Street, San Francisco.

GENERAL

The Schering Award Committee has announced the beginning of the ninth consecutive annual **essay contest for medical students** in the United States and Canada. Papers may be submitted on any of three subjects: (1) The Use of Androgen Therapy in the Female; (2) The Prophylactic and Therapeutic Uses of Parenteral Antihistamines; (3) Modern Treatment of Infections and Allergic Disorders of the Eye.

For the best paper on each of these subjects, the committee will present one $500 first prize and a $250 second prize. Special citations and professionally useful gifts will also be awarded to all students who submit papers of merit.

Deadline for entry forms specifying the student's chosen title is July 1, 1954, and manuscripts must be mailed not later than October 1. Students may compete individually or cooperatively in research teams.

Information and instructions for the competition are available from Schering Corporation, 2 Broad Street, Bloomfield, New Jersey.

POSTGRADUATE EDUCATION NOTICES

UNIVERSITY OF CALIFORNIA AT LOS ANGELES

Venereal Disease Public Health Conference—April 5-9.

Three-Day Symposia: Office Otolaryngology—April 29; Office Urology—April 30; Office Proctology—May 1.

Anesthesia—May 13-14.

Techniques of Hypnosis—May 18-19.

Electrocardiography—June 2-18.

Laboratory Technicians Symposium—June 19-20.

Contact: Mrs. Margaret H. Griffith, Assistant Head of Postgraduate Instruction, Medical Extension, University of California, Los Angeles 24, California.

UNIVERSITY OF CALIFORNIA, SAN FRANCISCO

Symposium on Emergencies: Medical, Surgical, Obstetrical

Date: April 16, 17, 18 (week-end), University of California Extension Building, 540 Powell Street, San Francisco.

Course in Internal Medicine, American College of Physicians

Date: June 14 through 18, all day, University of California Extension Building, 540 Powell Street, San Francisco.

Conference on General Surgery

Date: September 13 through 17, all day, at Medical Center. This conference will be offered for the purpose of stressing the newer concepts, methods of diagnosis, treatment and techniques in surgery. Throughout the session emphasis will be placed on the diagnosis and treatment of malignant lesions. Instruction will consist of didactic periods, panel discussions, and actual operative demonstrations which will be televised from the operating room to the lecture hall. This program will be designed for general practitioners who are doing surgery. The class will be limited.

Conference on Fractures and Diseases of the Bone

Date: September 20 through 23, all day, San Francisco County Hospital. The program will cover the newer concepts, methods of diagnosis, treatment and techniques. There will be didactic lectures, panel discussions, and actual demonstrations of illustrative cases. The class will be limited.

Medicine for General Practitioners

Date: September 21 to December 7, Tuesday evenings, East Oakland Hospital, Oakland. This is a continuation course which is offered every year, with complete change of program and speakers. Class limited.

Evening Lectures in Medicine, Part 1 and Part 2

Date: September 16 through December 9, Thursday evenings, Mills Memorial Hospital, San Mateo. This is also a continuation course which will be of interest to both internists (Part 1) and to physicians in general practice (Part 2).

Symposium on Endocrine Diseases and Geriatrics

Date: October 22, 23, 24 (week-end), University of California Extension Building, 540 Powell Street, San Francisco. A review of recent developments in both fields, with suggestions for the management of patients past the age of fifty.

Microscopy (Part 1)

Date: January 14 through March 18, Thursday evenings, Medical Center.

Photomicrography (Part 2)

Date: April 1 through June 3, Thursday evenings, Medical Center. Part 2, Photomicrography, in monochrome and in color, cannot be taken without Part 1, but Part 1, Microscopy, which includes the critical use of the microscope, may be taken alone. These courses are open to any persons who are interested in the study of the topics listed above. Class limited.

Contact: Stacy R. Mettier, M.D., Head of Postgraduate Instruction, Medical Extension, University of California Medical Center, San Francisco 22, California.

COLLEGE OF MEDICAL EVANGELISTS

Gynecology (10 periods)

Date: March 24 through May 26, 1954. Wednesdays: 8:00-9:00 a.m. Tuition: $30.00. Dell D. Haughey, M.D., and Associates.

Operative Surgery (12 periods)

Date: March 24 through June 9, 1954. Hunterian Laboratory and L.A.C.G.H. Wednesdays: 9:30 a.m.-12.00. Tuition: $200.00. Harry A. Davis, M.D.

Minor Orthopedic Surgery (8 periods)

Date: April 1 through May 20, 1954. Thursdays: 8:00-9:30 p.m. Tuition: $30.00. Alonzo J. Neufeld, M.D., and Associates.

Surgical Diseases of Children (4 periods)

Date: April 6 through April 27, 1954. Tuesdays: 11:00 a.m.-12 m. Tuition: $20.00. J. Norton Nichols, M.D.

Endocrinology (8 periods)

Date: April 6 through May 25, 1954. Tuesdays: 8:00-9:30 p.m., Los Angeles County Hospital. Tuition: $30.00. Julius Bauer, M.D.

Thoracic Surgery (8 periods)

Date: April 14 through June 2, 1954. Wednesdays: 8:00-9:30 p.m., Los Angeles County Hospital. Tuition: $30.00. Lyman A. Brewer, M.D.

Diseases and Injuries of Bones and Joints (4 weeks) Full time.

Date: July 5 through 30, 1954. Dr. Taylor's office and various hospitals. Tuition: $100.00. G. Mosser Taylor, M.D., Alonzo J. Neufeld, M.D., and Associates. Unless otherwise stated or arranged, courses will be held in Osler House, corner State and Michigan Avenues.

Contact: Chairman, Section on Graduate and Postgraduate Medical Education, College of Medical Evangelists, 312 North Boyle Avenue, Los Angeles 33, California.

STANFORD UNIVERSITY SCHOOL OF MEDICINE

Ophthalmology Conference

Date: March 22 through 26, 1954. Registration will be open to physicians who limit their practice to the treatment of diseases of the eye; or eye, ear, nose and throat. Registration limited to thirty physicians. Instructors will be A. Edward Maumenee, M.D., Dohrmann K. Pischel, M.D., Jerome W. Bettman, M.D., Max Fine, M.D., Earle H. McBain, M.D., and Arthur J. Jampolsky, M.D.

Clinical Ophthalmological Conference

Date: March 20, 1954, Saturday, 9:30-3:00, Stanford Lane Hospital, 2398 Sacramento Street, San Francisco, California. *No fee.*

Contact: Lowell Rantz, M.D., 2398 Sacramento Street, San Francisco, California.

C.M.A. REGIONAL MEDICAL AND SURGICAL INSTITUTES

West Coast Counties, Santa Barbara, March 18-19, 1954.

Sacramento Valley Counties, Sacramento, April 15-16, 1954. Please note change of date for Sacramento Valley Counties Institute, from April 1-2 to April 15-16, 1954.

Southern Counties, Palm Springs, April 22-23, 1954.

Contact: C. A. Broaddus, M.D., Director, Postgraduate Activities, California Medical Association, 1036 N. Center Street, Stockton, California.

SEMINARS OF THE ALUMNI COMMITTEE OF THE CHILDREN'S HOSPITAL, SAN FRANCISCO

March 30, 1954—Acute and Chronic Infections and the Choice of Antibiotics in Treatment.

April 24, 1954—Childhood Ecology, with a discussion of physical, mental and emotional growth and development of the young child; the effects of deprivation of maternal care, and the impact of environment on the child.

A fee of $15.00 will be charged for attendance at all the seminars and those who wish to have further details or be on the mailing list for such details may write to: H. E. Thelander, M.D., Children's Hospital, 3700 California Street, San Francisco.

ORTHOPAEDIC HOSPITAL AND RANCHO LOS AMIGOS RESPIRATORY CENTER, LOS ANGELES

Care of the Poliomyelitis Patient—April 26-30. The course is designed to cover all phases of patient care and rehabilitation, including use of the respirator.

Contact: Polio Teaching Program, Orthopaedic Hospital, 2400 South Flower Street, Los Angeles 7.

C.M.A. Cancer Commission
Pre-Convention Conference

LOS ANGELES—SATURDAY, MAY 8

Radiology

Conference Room 1, Biltmore Hotel

Chairman . . . . . Charles E. Duisenberg, M.D., Palo Alto
Secretary . . . . . George Jacobson, M.D., Los Angeles

DIAGNOSTIC SESSION—9:30 a.m. to Noon

Twelve diagnostic cases with histories and films will be presented. These cases have been selected to illustrate specific problems in the radiological and clinical diagnosis of cancer. Audience participation and discussion will be encouraged.

THERAPY SESSION—2:00 p.m. to 4:30 p.m.

Five cases illustrating specific therapy problems will be presented. Audience participation will be encouraged.

Pathology

Los Angeles Room, Hotel Statler

The Pre-Convention Conference on Microscopic Pathology of Tumors of the Chest will be held from 9:15 a.m. to 12 noon and from 2 to 4:30 p.m. under the chairmanship of Dr. Alvin G. Foord. Dr. Averill A. Liebow, Professor of Pathology, Yale University School of Medicine, New Haven, Connecticut, will be the moderator. Members who attend this conference are requested to register now with Dr. E. M. Hall, Tumor Tissue Registry, C.M.A. Cancer Commission, Los Angeles County Hospital, 1200 North State Street, Los Angeles 33.

6:30 p.m.—Los Angeles Room, Hotel Statler

Dinner meeting of the California Society of Pathologists. Guest speaker: Averill Liebow, M.D., Professor of Pathology, Yale University. For reservations contact Paul Michael, M.D., secretary, 450 Thirtieth Street, Oakland 9.

Cancer Commission Dinner

6:00 p.m.—Conference Room 9, Biltmore Hotel

Dinner Meeting of the Cancer Commission and Advisory Committee

JOHN W. GREEN
President

ARLO A. MORRISON
President-Elect

CALIFORNIA MEDICAL ASSOCIATION

83rd Annual Session

Los Angeles, May 9-13, 1954

Scientific Sessions

Meetings of the House of Delegates

Information

BADGES. It is important that badges be worn at all times. Admission to scientific meetings is by badge only.

COUNCIL. The first meeting of the Council will be held Saturday, May 8, at 9:30 a.m., Biltmore Hotel. Further meetings will be held each morning at 7:30 a.m. in Conference Room 6, Biltmore Hotel.

DELEGATES. For a list of delegates, meeting times and places, see pages 246 to 248 of this program.

EMERGENCY CALLS AND MESSAGES. Each physician should notify his own secretary regarding the *exact* section he plans to attend and the time of his attendance. It is up to the individual physician to keep his own office staff so informed. The Association will attempt to transmit messages to the individual physician *when* these are delivered to the Information Desk, Ballroom, at the south end of the Galeria, with the information concerning the exact location of the prospective recipient of the message.

In cases of emergency, when the doctor cannot be located, the call will be referred to Emergency Call Service of the Los Angeles County Medical Association, DUnkirk 5-1581.

EXHIBITS. Technical Exhibits are in the Ballroom, Ballroom Foyer and Music Room. See list, pages 237 to 245.

Scientific Exhibits may be seen in the North and Main Galeria. See list on page 234.

Medical Motion Pictures will be shown daily in the Galeria Room.

Television will be shown in the Renaissance Room. For schedule see pages 234 and 235.

You are urged to visit and attend all exhibits.

MEETING TIMES AND PLACES. See chart on page 213 for exact times and places of general and sectional meetings.

REGISTRATION. Registration and information desks are located in the Ballroom at the south end of the Galeria of the Biltmore Hotel. *All members, guests, and visitors* are requested to register immediately on arrival. There is no charge for registration. Registration desks are open from 9:00 a.m. to 5:00 p.m. daily. *Admission to the general and section sessions and exhibit areas is by badge only.*

QUALIFICATIONS/REQUIREMENTS FOR REGISTRATION. (a) All M.D.'s with credentials showing that they hold valid license to practice medicine. (Membership card in C.M.A.; county medical society/association; or A.M.A. membership card.) (b) Medical students will be admitted upon presentation of credentials from their medical schools identifying them as medical students. A membership card of the Student American Medical Association will be sufficient. (c) Medical secretaries will be admitted upon presentation of a letter from the physician-employer. (d) Pharmacist mates and other military personnel of a like grade will be admitted upon presentation of a letter requesting their admittance, written by their commanding officer. (e) Dentists (D.D.S.), doctors of veterinary medicine (D.V.M.), registered nurses (R.N.), x-ray technicians, laboratory technicians, dietitians, allied public health personnel, and others will be admitted provided they have proper identification. (f) *All questions on admission will be passed on by a member of the Committee on Registration who will be present at the desk.*

Entertainment

PRESIDENT'S DINNER DANCE, Monday, May 10, Biltmore Bowl. 7:30 p.m. Tickets are on sale at the Registration Desk. Formal dress is optional.

The Annual Golf Tournament will be held Tuesday afternoon, May 11, at the Wilshire Country Club. All members attending the meeting are welcome to play. Tee off time 10 a.m. on. Numerous prizes will be awarded. No reservations are necessary. For further information contact M. J. Groat, M.D., Secretary, Southern California Medical Golf Association, 5807 N. Temple City Blvd., Temple City.

California Society of Allergy Reception and Dinner, Tuesday, May 11, Conference Room 2; Luncheon, Wednesday, May 12, Bowl Foyer. For information and reservations contact Elizabeth Sirmay, M.D., 133 S. Lasky Drive, Beverly Hills.

U. C. Medical School Alumni-Faculty Association Luncheon, Tuesday, May 11, Bowl Foyer, Biltmore Hotel. Information and reservations — C.M.A. Reservation Desk, Biltmore Hotel.

Medical Women's Society Reception, Tuesday, May 11, 4:00 to 6:00 p.m., Conference Room 7, Biltmore Hotel. For information—C.M.A. Reservation Desk.

Tulane Medical Alumni Luncheon, Wednesday, May 12, Conference Room 5, Biltmore Hotel. For reservations—C.M.A. Reservation Desk.

WOMEN'S ENTERTAINMENT — Tickets available for TV and radio broadcasts for members and guests. Inquire at Woman's Auxiliary table marked **Entertainment** located in the Main Galeria.

Reception honoring Mrs. John W. Green, Sunday, May 9, 5:00 to 7:00 p.m., Galeria Room, Biltmore Hotel.

Other Meetings — Ancillary Organizations

Dermatologic Clinical Pathological Conference, Sunday, May 9, 1:00 p.m., Auditorium, Room 1602, Los Angeles County Hospital, 1200 North State Street. Nelson Paul Anderson, M.D., Los Angeles, and Walter Nickel, M.D., San Diego, chairmen.

California Society of Pathologists Round Table Luncheon, Monday, May 10, 12:30 p.m., Bowl Foyer. For reservations contact Paul Michael, M.D., 450 30th Street, Oakland.

Bureau of Medical Economics—Monday and Tuesday, May 10 and 11, 10:00 a.m. to 4:00 p.m., Conference Room 5, Biltmore Hotel.

State Board of Health, Tuesday, May 11, 9:30 a.m. to 5:00 p.m., Conference Room 9, Biltmore Hotel.

Conference of Local Health Officers—Thursday and Friday, May 13 and 14, 9:30 a.m. to 5 p.m., Conference Room 4, Biltmore Hotel.

PROGRAM AND PRE-CONVENTION REPORTS

for the

CALIFORNIA MEDICAL ASSOCIATION

Eighty-Third Annual Session
Los Angeles, May 9-13, 1954
Biltmore Hotel

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Guest Speakers

WALTER B. MARTIN

URBAN EVERSOLE

BRAM ROSE

WILLIAM A. SODEMAN

HENRY SWAN

Guest Speakers

Walter B. Martin, M.D., Norfolk, Virginia—President-Elect, American Medical Association.

Urban Eversole, M.D., Boston, Massachusetts—Director, Anesthesia Department, Lahey Clinic.

Bram Rose, M.D., Montreal, Canada—Associate Professor of Medicine (Allergy), McGill University.

William A. Sodeman, M.D., Columbia, Missouri—Professor of Medicine, University of Missouri School of Medicine.

Henry Swan, M.D., Denver, Colorado—Professor of Surgery, University of Colorado School of Medicine.

Other Section Speakers from Out of State

Jarvey Gilbert, M.D., Navajo Medical Center, Ft. Defiance, Arizona—Guest of the Section on General Medicine and California Heart Association.

Averill A. Liebow, M.D., New Haven, Connecticut—Professor of Pathology, Yale University School of Medicine. Guest of the Section on Pathology and Bacteriology.

Wilson G. Smillie, M.D., New York, N. Y.—Professor and Chairman, Department of Preventive Medicine and Public Health, Cornell University College of Medicine. Guest of the Section on Public Health.

Hotel Reservation

FOR C.M.A. ANNUAL SESSION

If you have not already notified the C.M.A. office of the hotel accommodations you would like to have for the Annual Session, May 9 through 13, won't you order your reservation now? Just complete the form below and send it to the main office, 450 Sutter Street, San Francisco, at the earliest possible date—not later than April 30, please. A hotel assignment notice will be sent to you upon receipt of the completed form.

	Single	*Double*	*Twin Beds*	*Triple*	*Suites*
BILTMORE HOTEL	$5.50	$8.50	$9.00	$2.50	$17.20
515 S. Olive	11.50	14.00	14.00	per person extra	22-25 26-33
GAYLORD HOTEL	7.00	9.50	9.50	11.50	13.50
3355 Wilshire	and up	and up	and up	and up	and up
MAYFLOWER HOTEL	5.50	5.50	5.50	7.50	16.50
535 S. Grand Ave.	9.00	9.00	9.00		
TOWN HOUSE	9.00	14-19	14-19	3.00	22.00
639 Commonwealth	16.00			per person extra	and up
ALEXANDRIA HOTEL	4.00	6.00	7.00	2.00	12.50-25
210 West Fifth St.	8.00	9.00	10.50	per person extra	

Please fill out and return this blank not later than April 30

California Medical Association
450 Sutter Street — Room 2000
San Francisco 8, California

Gentlemen:

Please make hotel reservations for me at the.....Hotel

in Los Angeles (second choice:.....) for the period of the C.M.A. Annual Session, as follows:

Single Room $.....Double Room $.....Twin-Bed Room $.....

Parlor (large/small) Suite $.....Adjoining Twin-Bed Rooms, No..... $.....

Number in party is....., consisting of self and.....

Will arrive (date)....., ...A.M. or .....P.M.

Will depart (date)....., ...A.M. or .....P.M.

Print Name Please

Name.....

Address.....

City.....County.....

SCIENTIFIC SESSIONS

	SUNDAY MAY 9 *All Day*	MONDAY MAY 10 A.M.	MONDAY MAY 10 P.M.	TUESDAY MAY 11 A.M.	TUESDAY MAY 11 P.M.	WEDNESDAY MAY 12 A.M.	WEDNESDAY MAY 12 P.M.	THURSDAY MAY 13 A.M.	THURSDAY MAY 13 P.M.
BILTMORE HOTEL Renaissance Room	**9:30 a.m. House of Delegates**	**9:00** Television General Surgery General Medicine Anesthesiology	**2:00** Television General Practice Obstetrics and Gynecology and Pediatrics	**9:00** Television **10:30 General Meeting**	**2:00** Television **3:00** Clinical-Pathological Conference	**9:30 a.m. House of Delegates**		**9 to 10:30** Television Psychiatry and Neurology	
Galeria Room		**9:00 a.m. to 5:30 p.m. Medical Motion Pictures**		**9:00 a.m. to 5:30 p.m. Medical Motion Pictures**		**9:00** General Practice, N.Cal. and S.Cal. Rheumatism Assn.	**12:30 to 5:30 p.m. Medical Motion Pictures 7 to 11:00 p.m.**	**9:00 a.m. to 3:00 p.m. Medical Motion Pictures**	
Conference Room 1		**9:00** Radiology	**2:00** Radiology and Urology	**9:00** Urology	**2:00** Urology	**9:00** Psychiatry and Neurology	**2:00** Psychiatry and Neurology	**9:00** Obstetrics and Gynecology	**2:00** Obstetrics and Gynecology
Conference Room 2		**9:00** Eye, Ear, Nose and Throat	**2:00** Eye, Ear, Nose and Throat	**9:00** Radiology	**2:00** Anesthesiology		**2:30** Allergy		
Conference Room 4				**10:00** Industrial Medicine and Surgery	**2:00** Industrial Medicine and Surgery	**9:00** Public Health			
Conference Room 8		**9:00** Pathology and Bacteriology	**2:00** Pathology and Bacteriology			**9:00** Allergy			
BAPTIST CHURCH Burdette Hall Fifth and So. Olive						**9:00** General Medicine	**2:00** General Medicine, Cal. Heart Assn.		
BAPTIST CHURCH Chapel Fifth and So. Olive			**2:00** Anesthesiology						
SUNKIST BUILDING Fifth and So. Flower		**9:00** Dermatology and Syphilology	**2:00** Dermatology and Syphilology				**2:00** Pediatrics	**9:00** Pediatrics	
SO. CALIFORNIA EDISON BLDG. Fifth and So. Grand			**2:00** General Surgery			**9:00** Surgery General	**2:00** General Practice and Public Health	**9:00** General Practice	

COUNCIL OF THE C.M.A. MEETS DAILY AT 7:30 A.M. IN CONFERENCE ROOM 6, BILTMORE HOTEL

SCIENTIFIC EXHIBITS—North and Main Galerias, Biltmore Hotel

HOUSE OF DELEGATES meets Sunday and Wednesday, 9:30 a.m.

TECHNICAL EXHIBITS—Music Room, Ballroom, and Ballroom Foyer, Biltmore Hotel

MEDICAL MOTION PICTURES—Galeria Room, Biltmore Hotel

SCIENTIFIC SESSIONS

General Meetings

First General Meeting

TUESDAY, MAY 11

9:00—Renaissance Room, Biltmore Hotel

Television Presentation and General Meeting

9:00—**Television Presentation on Portal Hypertension from the Los Angeles County Hospital.** For Schedule, see page 235.

General Meeting

Chairman: John W. Green, M.D., Vallejo

10:30—**Address of the President-elect of the American Medical Association**—Walter B. Martin, M.D., Norfolk, Virginia, by invitation.

10:50—**The Use of Hypothermia in Surgery**—Henry Swan, M.D., Denver, Colorado, by invitation.

11:10—**Spinal Puncture Headache**—Urban Eversole, M.D., Boston, Massachusetts, by invitation.

11:30—**Some Aspects of Hypersensitivity in General Medicine**—Bram Rose, M.D., Montreal, Canada, by invitation.

11:50—**The Clinical Problem of Chronic Diarrhea**—William A. Sodeman, M.D., Columbia, Missouri, by invitation.

Second General Meeting

TUESDAY, MAY 11

2:00—Renaissance Room, Biltmore Hotel

Television Presentation and Clinical-Pathological Conference

2:00—**Television Presentation on Radioactive Isotopes from the Los Angeles County Hospital.** For Schedule, see page 235.

Clinical-Pathological Conference

Moderator: L. Henry Garland, M.D., San Francisco

3:00—**Case No. 1**—Pathologist: Charles P. Baker, M.D., Oakland; Internists: Edward C. Rosenow, Jr., M.D., Los Angeles, and Dwight L. Wilbur, M.D., San Francisco; Radiologist: Charles E. Grayson, M.D., Sacramento.

4:00—**Case No. 2**—Pathologist: H. Russell Fisher, M.D., Los Angeles; Surgeons: Victor Richards, M.D., San Francisco, and Clarence Berne, Los Angeles; Radiologist: Sydney F. Thomas, M.D., Palo Alto.

EMERGENCY CALLS

Notify your office or exchange regarding the meetings you plan to attend. In cases of emergency, when the doctor cannot be located, the call will be referred to Emergency Call Service of the Los Angeles County Medical Association, DUnkirk 5-1581.

ADMISSION TO SESSIONS AND EXHIBITS BY REGISTRATION BADGE ONLY

GENERAL MEDICINE

Chairman . . . . . William D. Evans, M.D., North Hollywood
Secretary . . . . . Edgar Wayburn, M.D., San Francisco
Assistant Secretary . . . . . Roger O. Egeberg, M.D., Los Angeles

WILLIAM D. EVANS
Chairman

EDGAR WAYBURN
Secretary

MONDAY, MAY 10

9:00—Renaissance Room, Biltmore Hotel

Joint Meeting with the Sections on General Surgery and Anesthesiology

Television Presentation and Scientific Program

Cardiac Surgery

9:00—**Television Program: A Cardiovascular Conference from the Los Angeles County Hospital.**

11:00—**Medical Problems of Valvulotomy Patients Occurring During the Postoperative Period**—Albert A. Kattus, M.D., and J. Swartz, M.D., Los Angeles, both by invitation.

11:15—**Cardiac Catheterization in Preoperative Evaluation of Patients with Valvular Heart Disease**—Arthur Selzer, M.D., San Francisco.

11:30—**Pericarditis**—William A. Sodeman, M.D., Columbia, Missouri, by invitation.

WEDNESDAY, MAY 12

9:00—Burdette Hall, Baptist Church

9:00—**Obesity and Liver Impairment** — John O. Westwater, M.D., Los Angeles.

9:15—**Metabolic and Clinical Studies with Intravenous Fat Emulsion** — Laurance Kinsell, M.D., Oakland.

9:30—**Medical Aspects of the Cholinesterase Inhibiting Insecticides (Parathion)**—Raymond P. Collins, M.D., and J. H. Thompson, M.D., San Francisco.

9:45—**Clinical Disorders Due to Abnormalities of Hemoglobin**—John S. Lawrence, M.D., and William N. Valentine, M.D., Los Angeles.

10:00—**The Effects of 1-4 di (Methanesulfoneoxy) Butane (Myleran) on Leukemia**—Selig A. Gellert, M.D., Stacy R. Mettier, M.D., Maurice E. Leonard, M.D., Jonah G. Li, M.D., and Russell Tat, M.D., San Francisco; and Nickolas Petrakis, M.D., San Francisco, by invitation.

10:15—**Intermission.**

10:20—**Business Meeting.**

10:25—**Widespread Use of Antibiotics and Its Consequences**—Lowell Rantz, M.D., San Francisco.

10:40—**Antibiotic Anaphylaxis**—Jason Farber, M.D., and Joseph Ross, M.D., Oakland.

10:55—**Aspects of Choice in Antibiotics**—William A. Sodeman, M.D., Columbia, Missouri, by invitation.

11:25—**Panel Discussion on Antibiotics**—William A. Sodeman, M.D., Columbia, Missouri, by invitation; Bram Rose, M.D., Montreal, Canada, by invitation; Jason Farber, M.D., Oakland, and Lowell Rantz, M.D., San Francisco.

(See next page)

WEDNESDAY, MAY 12

2:00—Burdette Hall, Baptist Church

Combined Meeting of the Section on General Medicine of the California Medical Association and the California Heart Association

2:00—Newer Methods in the Diagnosis of Rheumatic Fever—Jack A. Sheinkopf, M.D., Beverly Hills.

2:15—Chairman's Address: To Prolong a Miserable Existence—William D. Evans, M.D., North Hollywood.

2:30—Absence of Coronary Artery Disease Among a Select Group—Jarvey Gilbert, M.D., Fort Defiance, Arizona.

2:45—Acute Coronary Insufficiency — A Study of the Electrocardiographic Changes by Vector Methods—John C. Talbot, M.D., David C. Levinson, M.D., Richard S. Cosby, M.D., Mary Mayo, A.B., Los Angeles.

3:00—Differentiation Between Physiologic and Pathologic Hypertrophy of the Heart—Travis Winsor, M.D., Los Angeles.

3:15—Blood Volume Determination in Cardiac Decompensation, Using Radiochromium — William A. Reilly, M.D., Richard French, M.D., Francis Y. K. Lau, M.D., and Kenneth G. Scott, Ph.D., San Francisco.

3:30—Intermission.

3:40—A Study of Partial Pressure of CO_2 in Expired Air in Heart Disease—Dean Pocock, M.D., James J. Short, M.D., and Allan Hemingway, Ph.D., Long Beach.

3:55—Refractory Heart Failure—William A. Sodeman, M.D., Columbia, Missouri.

4:25—The Choice and Use of Hypotensive Agents—Francis L. Chamberlain, M.D., William H. Thomas, M.D., and Harold I. Griffeath, M.D., San Francisco.

4:40—Laboratory and Clinical Experience with the Square Wave Cardiac Stimulator — John F. Dammann, Jr., M.D., Marvin L. Darsie, Jr., M.D., William H. Muller, Jr., M.D., C. A. Smith, W. J. Whalen, Ph.D., and T. Nolan, Los Angeles.

EMERGENCY CALLS AND MESSAGES

Each physician should notify his own secretary regarding the *exact* section he plans to attend and the time of his attendance. It is up to the individual physician to keep his own office staff so informed. The Association will attempt to transmit messages to the individual physician *when* these are delivered to the Information Desk, Ballroom, at the south end of the Galeria, with the information concerning the exact location of the prospective recipient of the message.

In cases of emergency, when the doctor cannot be located, the call will be referred to Emergency Call Service of the Los Angeles County Medical Association, DUnkirk 5-1581.

No outside phone calls will be permitted from the telephone located at the Information Desk. Pay telephones are located in the Main Galeria and in the lower lobby of the hotel, near the travel agency office.

VISIT THE TECHNICAL AND SCIENTIFIC EXHIBITS

GENERAL SURGERY

Chairman . . . . . Arthur C. Pattison, M.D., Pasadena
Secretary . . . . . William Brock, M. D., Stockton
Assistant Secretary . . . . . Lyman A. Brewer, M.D., Los Angeles

ARTHUR C. PATTISON
Chairman

WILLIAM BROCK
Secretary

MONDAY, MAY 10

9:00—Renaissance Room, Biltmore Hotel

Joint Meeting with the Sections on General Medicine and Anesthesiology

Television Presentation and Scientific Program
Cardiac Surgery

For Program, see Section on General Medicine

Arthur C. Pattison, M.D., chairman, Surgery Section, will be coordinator of the surgical portion of the television program

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MONDAY, MAY 10

2:00—Auditorium, Southern California Edison Building

Pediatric Surgery

2:00—**The Treatment of Cryptorchidism**—Donald R. Smith, M.D., San Francisco.

2:20—**Intra-Abdominal Cysts in Infants and Children with a Report of 44 Cases**—Thomas Newlin Hastings, M.D., and William J. Norris, M.D., Los Angeles.

2:40—**Problems of Thoracic Surgery in Infancy and Childhood**—Henry Swan, M.D., Denver, by invitation.

3:10—**Fundamental Concepts in Pediatric Anesthesia**—Woodrow E. Lomas, M.D., San Francisco.

3:30—**Congenital Diaphragmatic Hernia**—Burton E. Adams, M.D., San Leandro.

3:50—**Congenital Anomalies of the Esophagus**—Francis S. Gerbasi, M.D., Long Beach.

4:10—**Round Table Discussion**
Moderator: Henry Swan, M.D., Denver, by invitation.

WEDNESDAY, MAY 12

9:00—Auditorium, Southern California Edison Building

9:00—**Management of Resectable Lesions of the Small Bowel**—Max R. Gaspar, M.D., Long Beach.

9:20—**The Clinical Pattern of Polyps of the Rectum and Colon**—Ralph V. Byrne, M.D., Los Angeles.

9:40—**The Changing Concept of Surgical Treatment for Peptic Ulcer**—Paul F. Olson, M.D., North Hollywood.

10:00—**An Approach to the Management of Thyroid Carcinoma**—John D. Briggs, M.D., Los Angeles, by invitation; and G. Arnold Stevens, M.D., Beverly Hills.

10:20—**The Changing Picture in the Surgery of Pulmonary Tuberculosis**—John C. Jones, M.D., Joseph L. Robinson, M.D., and Bert W. Meyer, M.D., Los Angeles.

10:40—**Business Meeting and Election of Officers.**

10:50—**Diagnosis and Treatment of the Surgical Abdomen**—E. M. Greaney, M.D., and William H. Snyder, Jr., M.D., Los Angeles.

11:10—**Errors in Diagnosis of Acute, Mechanical, Small Intestinal Obstruction**—Edwin G. Clausen, M.D., Oakland.

11:30—**Gastric Polyposis**—Orville F. Grimes, M.D., San Francisco.

GENERAL PRACTICE

Chairman . . . . . A. Bradford Carson, M.D., Oakland
Secretary . . . . . Joseph W. Telford, M.D., San Diego
Assistant Secretary . . . . . R. Varian Sloan, M.D., Glendale

A. BRADFORD CARSON
Chairman

JOSEPH W. TELFORD
Secretary

MONDAY, MAY 10

2:00—Renaissance Room, Biltmore Hotel

Joint Meeting with Sections on Pediatrics, Obstetrics and Gynecology

Television Presentation and Scientific Program

Problems of the Newborn and Young Infant

2:00—**Television Program from the Los Angeles County Hospital.** For schedule see page 234.

3:30—**Paravaginal Hematomas Following Labor—Their Recognition and Management**—George F. Melody, M.D., San Francisco.
Discussion.

4:00—**Points of Emphasis in the Care of a Healthy Infant**—Milo B. Brooks, M.D., Los Angeles.
Discussion.

4:30—**General Questions and Discussion from the Floor.**

WEDNESDAY, MAY 12

9:00—Galeria Room, Biltmore Hotel

Combined Meeting of the Section on General Practice and the Northern and Southern California Rheumatism Associations

9:00—**Diagnosis of Osteoarthritis**—Howard J. Weinberger, M.D., Los Angeles.

9:15—**Diagnosis of Rheumatoid Arthritis** — Stacy R. Mettier, M.D., San Francisco.

9:30—**Diagnosis of Rheumatoid Spondylitis**—Carlos F. Sacasa, M.D., Pasadena.

9:45—**Diagnosis of Gout and Gouty Arthritis**—Nathan E. Headley, M.D., Los Angeles.

10:00—**Diagnosis of Less Common Forms of Arthritis**—Roland Davison, M.D., San Francisco.

10:15—**Recess.**

10:30—**Round Table Discussion—Treatment of the Arthritides.**
Moderator: Ephraim P. Engleman, M.D., San Francisco.

ADMISSION TO SESSIONS AND EXHIBITS BY REGISTRATION BADGE ONLY

WEDNESDAY, MAY 12

2:00—Auditorium, Southern California Edison Building

Joint Meeting with the Section on Public Health

For program, see Section on Public Health

THURSDAY, MAY 13

9:00—Auditorium, Southern California Edison Building

Symposium

Diseases of the Chest

9:00—The Differential Diagnosis and Management of Cough—Joseph J. Furlong, M.D., San Francisco.

9:30—Changing Concepts in the Treatment of Bronchiectasis—Seymour M. Farber, M.D., and Mortimer A. Benioff, M.D., San Francisco.

10:00—The Significance of Allergy and Immunology in Pulmonary Mycotic Infections—Edmund L. Keeney, M.D., San Diego.

10:30—Diagnosis and Management of Acute Pulmonary Infections—William L. Hewitt, M.D., Los Angeles, by invitation.

11:00—Surgical Implications of Common Chest Complaints—David J. Dugan, M.D., Oakland.

11:30—Discussion.

12:00—Business Meeting and Election of Officers.

QUALIFICATIONS/REQUIREMENTS FOR REGISTRATION

(a) All M.D.'s with credentials showing that they hold valid license to practice medicine. (Membership card in C.M.A.; county medical society/association; or A.M.A. membership card.)

(b) Medical students will be admitted upon presentation of credentials from their medical schools identifying them as medical students. A membership card of the Student American Medical Association will be sufficient.

(c) Medical secretaries will be admitted upon presentation of a letter from the physician-employer.

(d) Pharmacist mates and other military personnel of a like grade will be admitted upon presentation of a letter requesting their admittance, written by their commanding officer.

(e) Dentists (D.D.S.), doctors of veterinary medicine (D.V.M.), registered nurses (R.N.), x-ray technicians, laboratory technicians, dietitians, allied public health personnel, and others will be admitted provided they have proper identification.

(f) *All questions on admission will be passed on by a member of the Committee on Registration who will be present at the desk.*

BRING PROPER IDENTIFICATION FOR REGISTRATION

ALLERGY

Chairman . . . . . Grace M. Talbott, M.D., San Francisco
Vice-Chairman . . . . . Norman Shure, M.D., Los Angeles
Secretary . . . . . Lazarre J. Courtright, M.D., San Francisco

GRACE M. TALBOTT
Chairman

LAZARRE J. COURTRIGHT
Secretary

WEDNESDAY, MAY 12

9:00—Conference Room 8, Biltmore Hotel

9:00—**My Experience in the Allergy and ENT Clinics While Stationed in the Armed Services in Texas**—William M. Fitzhugh, Jr., M.D., San Francisco.
Discussion.

9:30—**Meat Base Formulas in Diagnosis and Treatment of Infantile Eczema and Asthma**—Albert H. Rowe, Jr., M.D., Oakland.
Discussion.

10:00—**Allergy in Identical Triplets**—William J. Kerr, Jr., M.D., San Rafael.
Discussion.

10:30—**Chairman's Address: Attempts at Rapid Assay of Factors in the Allergic Syndrome**—Grace M. Talbott, M.D., San Francisco.

11:00—**Experimental Neurosis and Horse Serum Sensitivity in Guinea Pigs**—L. J. Courtright, M.D., San Francisco, and Werner Mendel, M.A., Los Angeles, by invitation.
Discussion.

11:30—**Emotional Aspects of Allergic Disturbances**—Malcolm H. Finley, M.D., San Francisco.
Discussion.

12:00—Bowl Foyer, Biltmore Hotel

12:00—**Luncheon Meeting**—Sponsored jointly by the Section on Allergy and the California Society of Allergy.

WEDNESDAY, MAY 12

2:30—Conference Room 2, Biltmore Hotel

2:30—**Pulmonary Ventilation Studies in Allergic Patients**—Henry T. Friedman, M.D., Beverly Hills, and Roderick McDonald, M.D., Torrance.
Discussion.

3:00—**The Role of Histamine and the Adrenal Cortex in Allergy**—Bram Rose, M.D., Montreal, Canada, by invitation.
Discussion.

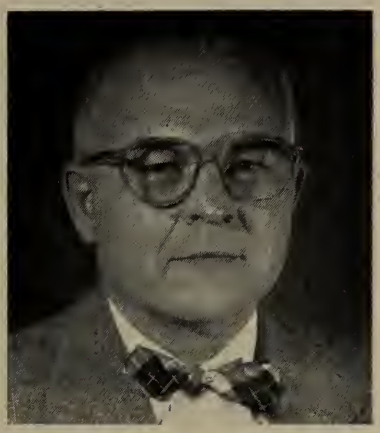
4:00—**The Dynamics of Desensitization**—Phillip A. Cavelti, M.D., Palo Alto.
Discussion.

4:30—**Aminophyllin in Treatment of Allergy Clinic Patients** — Samuel H. Waxler, M.D., San Francisco.
Discussion.

ADMISSION TO SESSIONS AND EXHIBITS BY REGISTRATION BADGE ONLY

ANESTHESIOLOGY

Chairman . . . . . Joseph H. Failing, M.D., San Marino
Secretary . . . . . Marshall L. Skaggs, M.D., Sacramento
Assistant Secretary . . . . . John P. Howard, M.D., San Diego



JOSEPH H. FAILING
Chairman

MARSHALL L. SKAGGS
Secretary

MONDAY, MAY 10

9:00—Renaissance Room, Biltmore Hotel

Joint Meeting with the Sections on General Medicine and General Surgery

Television Presentation and Scientific Program

Cardiac Surgery

For Program, see Section on General Medicine

MONDAY, MAY 10

2:00—Chapel, Baptist Church

Symposium

Geriatric Anesthesia

2:00—**The Anesthetic Management of the Elderly Patient**—Urban H. Eversole, M.D., Boston, by invitation.

2:45—**Chairman's Address: The Anesthetic Management of Eye Surgery in the Aged**—Joseph H. Failing, M.D., San Marino.

3:05—**Recess.**

3:15—**The Anesthetic Management of Hip-Nailing in the Aged**—Richard A. Koons, M.D., Los Angeles.

3:35—**As the Anesthesiologist Sees the Sunset**—Charles D. Anderson, M.D., Oakland.

3:55—Discussion.

4:20—**Business Meeting and Election of Officers.**

TUESDAY, MAY 11

2:00—Conference Room 2, Biltmore Hotel

2:00— **Panel Discussion**

Teamwork for the Geriatric Patient in Surgery

Moderator: Urban H. Eversole, M.D., Boston, by invitation.

The Surgeon Views the Geriatric Patient—Jack M. Farris, M.D., Los Angeles.

The Internist Consults on the Geriatric Patient—Joseph F. Sadusk, Jr., M.D., Oakland.

Electrolyte and Fluid Balance in the Geriatric Patient—Marcus A. Krupp, M.D., Palo Alto.

The Anesthesiologist Views the Geriatric Patient—Edward B. Tuohy, M.D., La Canada.

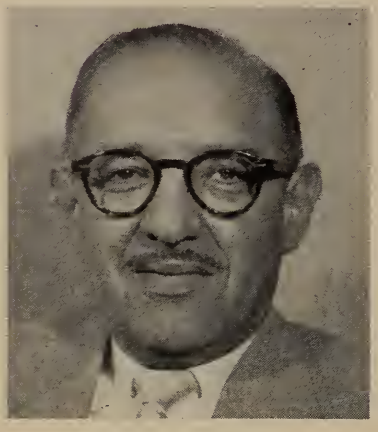
3:00—**Recess.**

3:15—**Questions and Round Table Discussion.**

VISIT THE TECHNICAL AND SCIENTIFIC EXHIBITS

DERMATOLOGY AND SYPHILOLOGY

Chairman . . . . . Louis H. Winer, M.D., Beverly Hills
Secretary . . . . . Walter F. Schwartz, M.D., Pasadena
Assistant Secretary . . . . . R. Ray Allington, M.D., Oakland



LOUIS H. WINER
Chairman

WALTER F. SCHWARTZ
Secretary

Note: Sunday, May 9, 1:00 p.m.—Dermatologic Clinical Pathological Conference, Auditorium, Room 1602, Los Angeles County Hospital, 1200 North State Street. Nelson Paul Anderson, M.D., Los Angeles, and Walter Nickel, M.D., San Diego, chairmen.

MONDAY, MAY 10

9:00—Auditorium, Sunkist Building

9:00—**Chronic Discoid Lupus Erythematosus with Porphyruria** — Irwin H. Linden, M.D., and Charles G. Steffen, M.D., Los Angeles, both by invitation.
Discussion.

9:20—**Fixed Drug Eruption**—Lawrence M. Nelson, M.D., Santa Barbara.
Discussion.

9:40—**Ammoidin (Xanthotoxin) in the Treatment of Vitiligo**—Molleurus Couperus, M.D., Los Angeles.
Discussion.

10:00—**Chairman's Address: Solitary Acquired Trichoepithelioma (The Enlarged Pore)**—Louis H. Winer, M.D., Beverly Hills.
Discussion.

10:20—**Recess.**

10:30—**Eczema Herpeticum (Kaposi's Varicelliform Eruption)**—Fred F. Feldman, M.D., and Ben A. Newman, M.D., Beverly Hills.
Discussion.

10:50—**Nevoid Seborrheic Keratosis-Like Tumors of the Genitalia**—Nelson Paul Anderson, M.D., and Lyon Rowe, M.D., Los Angeles.
Discussion.

11:10—**The Pathogenesis of Cutaneous Complications of Varicose Veins**—Eugene M. Farber, M.D., San Francisco.
Discussion.

11:30—**Business Meeting and Election of Officers.**

MONDAY, MAY 10

2:00—Auditorium, Sunkist Building

2:00—**Cat-Scratch Fever in Sisters**—Brace F. Hartwell, M.D., Inglewood.
Discussion.

2:20—**Werner's Syndrome**—Roy C. Smith, M.D., Escondido.
Discussion.

2:40—**The Use of Silicones and Silicone Preparations in Dermatology**—Paul Levan, M.D., and Thomas Sternberg, M.D., Los Angeles.
Discussion.

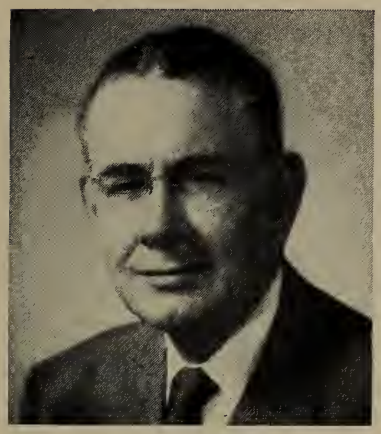
3:00—**The Use of ACTH and Cortisone in the Treatment of Acne Conglobata**—Earl Claiborne, M.D., Palo Alto.
Discussion.

3:20—**The Successful Management of Lupus Erythematosus with Alpha Tocopherol Acetate**—Paul D. Foster, M.D., Los Angeles.
Discussion.

3:40—**Round Table Discussion: Modern Techniques for Treatment of Acne Scarring.**
Moderator: Samuel Ayres, Jr., M.D., Los Angeles.
Discussants: Ralph Luikart, II, M.D., Santa Barbara; Paul Levan, M.D., Los Angeles; Willard L. Marmelzat, M.D., Los Angeles; Ben A. Newman, M.D., Beverly Hills; Ray Nordstrom, M.D., Berkeley; Monroe K. Ruch, M.D., Los Angeles.

EYE, EAR, NOSE AND THROAT

Chairman . . . . . Alfred R. Robbins, M. D., Los Angeles
Secretary . . . . . Francis A. Sooy, M.D., San Francisco
Assistant Secretary . . . . . Robert N. Shaffer, M.D., San Francisco



ALFRED R. ROBBINS
Chairman

FRANCIS A. SOOY
Secretary

MONDAY, MAY 10

9:00—Conference Room 2, Biltmore Hotel

9:00—**"Snorkel" Tracheotomy Tube for Respirator Use**—Charles P. Lebo, M.D., San Francisco.

9:30—**An Endotracheal Technique for Adenotonsillectomy**—Richard Thomas Barton, M.D., Beverly Hills.

10:00—**The Laryngologist Looks at Cigarettes**—Mervin C. Myerson, M.D., Beverly Hills.

10:30—**Diagnostic Problems in Atypical Laryngeal Lesions**—Edward Gordon McCoy, M.D., San Francisco.

11:00—**Transseptal, Transsphenoid Pituitary Surgery**—Mary Thompson, M.D., San Francisco, by invitation.

MONDAY, MAY 10

2:00—Conference Room 2, Biltmore Hotel

2:00—**Radioactive Isotopes in Ophthalmology**—John Lordan, M.D., Beverly Hills.
Discussion.

Symposium

Recent Advances in Diagnosis and Therapy

2:30—**Pediatric Ophthalmology**—Margaret Henry, M.D., San Francisco.

3:00—**Glaucoma**—Earle McBain, M.D., San Rafael.

3:30—**Extraocular Muscles** — George S. Campion, M.D., San Francisco.

4:00—**General Discussion.**

4:30—**Business Meeting.**

ADMISSION TO SESSIONS AND EXHIBITS BY REGISTRATION BADGE ONLY

INDUSTRIAL MEDICINE AND SURGERY

Chairman . . . . . Packard Thurber, Jr., M.D., Los Angeles
Secretary . . . . . Dan O. Kilroy, M.D., Sacramento
Assistant Secretary . . . . . Verne G. Ghormley, M.D., Fresno

PACKARD THURBER, JR.
Chairman

DAN O. KILROY
Secretory

TUESDAY, MAY 11

9:00—Renaissance Room, Biltmore Hotel

9:00—**Television Presentation on Portal Hypertension** from the Los Angeles County Hospital.

10:00—Conference Room 4, Biltmore Hotel

10:00—**Tetanus — Its Prevention and Treatment** — Sidney J. Adler, M.D., Anaheim.
Discussion.

10:30—**Some Aspects of Liver Damage Caused by Industrial Poisons** — James H. Thompson, M.D., San Francisco.
Discussion.

11:00—**Industrial Aspects of Coronary Thrombosis and Coronary Sclerosis**—William L. Adams, Jr., M.D., Fresno.
Discussion.

11:30—**Permanent Disability Evaluation**—Eli Welch, A.B., San Francisco, by invitation.
Discussion.

12:00—**Business Meeting and Election of Officers.**

TUESDAY, MAY 11

2:00—Conference Room 4, Biltmore Hotel

2:00—**Chairman's Address**—Packard Thurber, Jr., M.D., Los Angeles.
Discussion.

2:30—**Amputations and Prosthesis** — T. J. Canty, Captain, MC, USN, Oakland, by invitation.
Discussion.

3:00—**The Proper Use of Physical Medicine as Applied to the Injured Hand**—S. Malvern Dorinson, M.D., San Francisco.
Discussion.

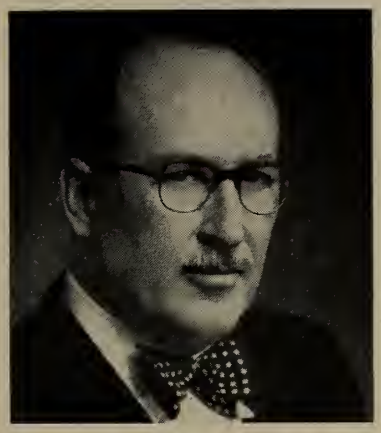
3:30—**Surgical Treatment of Rheumatic Tenosynovitis**—L. D. Howard, M.D., San Francisco.
Discussion.

4:00—**Reconstruction of the Collateral Ligaments of the Knee**—John R. Black, M.D., Los Angeles.
Discussion.

VISIT THE TECHNICAL AND SCIENTIFIC EXHIBITS

OBSTETRICS AND GYNECOLOGY

Chairman . . . . . Donald W. de Carle, M.D., San Francisco
Vice-Chairman . . . . . Harold K. Marshall, M.D., Glendale
Secretary . . . . . Charles T. Hayden, M.D., Oakland



DONALD W. de CARLE
Chairman

CHARLES T. HAYDEN
Secretary

MONDAY, MAY 10

2:00—Renaissance Room, Biltmore Hotel

Joint Meeting with the Sections on General Practice and Pediatrics

Television Presentation and Scientific Program
Problems of the Newborn and Young Infant

For Program, see Section on General Practice and Television Schedule, page 234.

THURSDAY, MAY 13

9:00—Conference Room 1, Biltmore Hotel

9:00—**Treatment of Inadequate Endometrium in Infertility** — Edward T. Tyler, M.D., Los Angeles.

Discussion by A. B. Abarbanel, M.D., and Wallace Shearer, Jr., M.D., Los Angeles.

9:30—**Comparative Iron Therapy in Pregnancy**—Robert DeVoe, M.D., Oakland.

Discussion by James E. Davis, M.D., Los Angeles.

10:00—**Postural Shock in Pregnancy**—Ralph L. Wilkening, M.D., Bakersfield.

Discussion by Samuel H. Martins, M.D., Los Angeles.

10:30—**The Hemodynamic Effect of Drugs Used in Hypertensive Diseases of Pregnancy**—Nicholas S. Assali, M.D., Los Angeles, by invitation.

Discussion by Bernard Hanley, M. D., Los Angeles.

11:00—**Decidual Reaction of the Cervix**—Wm. Buster McGee, M.D., San Diego.

Discussion by Willard B. Crosley, M.D., Glendale.

11:30—**Business Meeting and Election of Officers.**

THURSDAY, MAY 13

2:00—Conference Room 1, Biltmore Hotel

2:00—**Chairman's Address: Certain Unusual Phases of Soft Tissue Dystocia**—Donald W. de Carle, M.D., San Francisco.

2:30—**Etiologic Factors in Uterine Bleeding** — J. George Moore, Jr., M.D., Los Angeles.

Discussion by Richard Taw, M.D., Los Angeles.

3:00—**The Climacteric**—Nadina R. Kavinoky, M.D., Los Angeles.

Discussion by W. Maxwell Thebaut, Jr., M.D., Oakland.

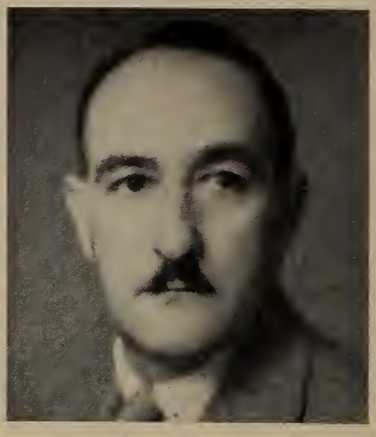
3:30—**Hyaluronidase Combined with Local Anesthesia in Pudendal Block**—Hobart M. Kelly, M.D., Riverside.

Discussion by Edmund F. Anderson, M.D., San Francisco.

PATHOLOGY AND BACTERIOLOGY

Chairman . . . . . A. R. Camero, M.D., Los Angeles
Secretary . . . . . Paul Michael, M.D., Oakland
Assistant Secretary . . . . . Orlyn B. Pratt, M.D., Los Angeles

A. R. CAMERO
Chairman



PAUL MICHAEL
Secretary

MONDAY, MAY 10

9:00—Conference Room 8, Biltmore Hotel

9:00—**Progress in Blood Preservation**—Frederick Proescher, M.D., San Jose.

9:30—**Cat-Scratch Fever**—Paul H. Guttman, M.D., Sacramento.

10:10—**Pseudosarcoid**—Nathan B. Friedman, M.D., Los Angeles, and Nancy Walker, M.D., Los Angeles, by invitation.

10:30—**Disseminated and Focal Manifestations of Necrotizing Granulomatosis** — Robert Fienberg, M.D., Beverly Hills, by invitation.

11:00—**Pathology of Bronchiectasis**—Averill A. Liebow, M.D., New Haven, Connecticut, by invitation.

12:30—Bowl Foyer, Biltmore Hotel

12:30—**Round Table Luncheon** (by reservation only). Sponsored jointly by the Section on Pathology and Bacteriology and the California Society of Pathologists.

MONDAY, MAY 10

2:00—Conference Room 8, Biltmore Hotel

2:00—**Systemic Mast Cell Disease with Urticaria Pigmentosa**—E. B. Reilly, M.D., Long Beach, by invitation.

2:20—**Chairman's Address** — A. R. Camero, M.D., Los Angeles.

3:00—**Elastic Tissue Disease: The Gromblad-Stanberg Syndrome with Enteric Manifestations** —Leo Kaplan, M.D., Los Angeles, by invitation.

3:20—**Rheumatic Lesions in Left Atrial Appendages Removed During Mitral Commissurotomy**—Leon J. Tragerman, M.D., Los Angeles, and C. L. Corley, M.D., by invitation.

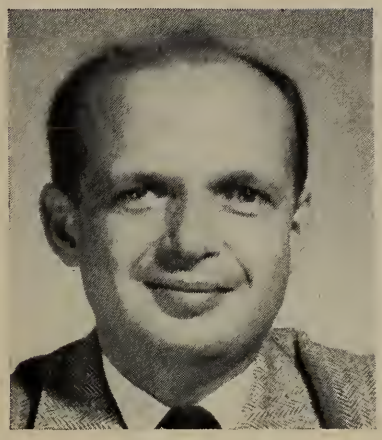
3:40—**Business Meeting and Election of Officers.**

VISIT THE TECHNICAL AND SCIENTIFIC EXHIBITS

PEDIATRICS

Chairman . . . . . Clement J. Molony, M.D., Beverly Hills
Secretary . . . . . Gordon F. Williams, M.D., Menlo Park
Assistant Secretary . . . . . Milo B. Brooks, M.D., Los Angeles

CLEMENT J. MOLONY
Chairman



GORDON F. WILLIAMS
Secretary

MONDAY, MAY 10

2:00—Renaissance Room, Biltmore Hotel

Joint Meeting with the Sections on General Practice and Obstetrics and Gynecology

Television Presentation and Scientific Program

Problems of the Newborn and Young Infant

For Program, see Section on General Practice and Television Schedule, page 234.

WEDNESDAY, MAY 12

2:00—Auditorium, Sunkist Building

2:00—**Normal Developmental Phenomena During the First Five Years of Life**—Arthur H. Parmelee, Jr., M.D., Los Angeles, by invitation.
Discussion by Esther B. Clark, M.D., Palo Alto.

2:30—**The Use of Amphetamine Sulfate (Benzedrine®) in Selected Cases of Mental Retardation** — Wendell L. Severy, M.D., Beverly Hills.
Discussion.

3:00—**Office Management of the Allergic Child**—Morton Zall, M.D., Los Angeles.
Discussion opened by Norman Shure, M.D., Los Angeles.

3:30—**Pediatric Ecology**—H. E. Thelander, M.D., San Francisco.
Discussion.

4:00—**Pediatric Rehabilitation Teams** — R. Bruce Jessup, M.D., Palo Alto.
Discussion.

THURSDAY, MAY 13

9:00—Auditorium, Sunkist Building

9:00—**Recognition and Management of Shigella Infections**—Moses Grossman, M.D., San Francisco.
Discussion by Joan Hodgman, M.D., Los Angeles.

9:30—**The Hypertensive Stage of Acute Nephritis—Treatment with a Derivative of Veratrum Viride**—Stephen W. Royce, M.D., San Marino.
Discussion.

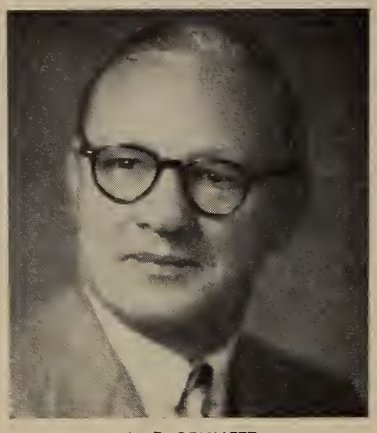
10:00—**A Therapeutic Regime for Tuberculous Meningitis**—Robert B. Stone, M.D., Oakland.
Discussion by Moses Grossman, M.D., San Francisco.

10:30—**Sedimentation Rates in Normal Children**—Saul Joel Robinson, M.D., San Francisco.
Discussion.

11:00—**Business Meeting and Election of Officers.**

PSYCHIATRY AND NEUROLOGY

Chairman . . . . . A. E. Bennett, M.D., Berkeley
Secretary . . . . . George N. Thompson, M.D., Los Angeles
Assistant Secretary . . . . . Maxwell M. Andler, M.D., Beverly Hills



A. E. BENNETT
Chairman

GEORGE N. THOMPSON
Secretary

WEDNESDAY, MAY 12

9:00—Conference Room 1, Biltmore Hotel

9:00—**Work as a Therapy, with Special Reference to the Elderly**—George J. Wayne, M.D., Los Angeles.

Discussion by Arthur Timme, M.D., Los Angeles, and Brunon Bielinski, M.D., Los Angeles.

9:30—**Potentiation of Anticonvulsant Protection with Diuretics**—Nicholas A. Bercel, M.D., Beverly Hills.

Discussion by Elinor Ives, M.D., Los Angeles, and Clemson Marsh, M.D., Glendale.

10:00—**Referred Pain in Headache** — Herbert H. Archibald, M.D., Oakland.

Discussion by James Jacobs, M.D., Long Beach, and Douglas G. Campbell, M.D., San Francisco.

10:30—**The Office Psychotherapy of Ambulatory Schizophrenics**—Don D. Jackson, M.D., Palo Alto.

Discussion by Norman Brill, M.D., Los Angeles.

11:00—**The Funkenstein Test as a Guide to Treatment in the Neuroses and Psychoses**—Anita M. Uhl, M.D., Berkeley, by invitation.

Discussion by A. E. Bennett, M.D., Berkeley.

WEDNESDAY, MAY 12

2:00—Conference Room 1, Biltmore Hotel

2:00—**Chairman's Address: Prevention of Suicide**—A. E. Bennett, M.D., Berkeley.

2:30—**The Use of Radioactive Iodine and Phosphorus in the Localization of Tumors of the Cerebral Hemisphere** — Edwin W. Amyes, M.D., Philip J. Vogel, M.D., Paul Deeb, M.D., Los Angeles; and Ralph Adams, A.B., Los Angeles, by invitation.

Discussion by Rupert Raney, M.D., and Frank Anderson, M.D., Los Angeles.

3:00—**Studies in Traumatic Amnesia**—J. M. Nielsen, M.D., Los Angeles.

Discussion by Clarence Olsen, M.D., Beverly Hills, and Augustus Rose, M.D., Los Angeles.

3:30—**The Differential Diagnosis of Lesions of the Skull**—David Eder, M.D., Pasadena.

Discussion by Cyril B. Courville, M.D., and Karl O. Von Hagen, M.D., Los Angeles.

4:00—**Results of Ligation of the Anterior Choroidal Artery**—Robert W. Rand, M.D., Los Angeles.

Discussion by Aidan Raney, M.D., Los Angeles, John French, M.D., Long Beach, and Joseph Orr, M.D., Santa Monica.

THURSDAY, MAY 13

9:00—Renaissance Room, Biltmore Hotel

Television Presentation

Neurological Diseases—Diagnosis and Management

For Program, see page 235.

PUBLIC HEALTH

Chairman . . . . . Charles E. Smith, M.D., Berkeley
Secretary . . . . . L. S. Goerke, M.D., Los Angeles
Assistant Secretary . . . . . E. M. Bingham, M.D., Stockton

CHARLES E. SMITH
Chairman

L. S. GOERKE
Secretary

WEDNESDAY, MAY 12

9:00—Conference Room 4, Biltmore Hotel

9:00—**Clinical Laboratory Law and Its Meaning to Private Physicians** — Malcolm H. Merrill, M.D., and W. Max Chapman, M.D., Berkeley.

Discussion.

9:30—**Problems of Research on Smog**—Fred A. Bryan, M.D., Los Angeles, by invitation.

Discussion.

10:00—**Air Pollution and Its Effect on Health**—Paul Kotin, M.D., Los Angeles.

Discussion.

10:30—**Selective Tuberculosis Case Finding**—Glen W. Kent, M.D., Martinez.

Discussion by Erwin P. Brauner, M.D., Visalia.

11:00—**A Rural Health and Education Program**—Robert D. Monlux, M.D., Fresno.

Discussion.

11:30—**Business Meeting.**

WEDNESDAY, MAY 12

2:00—Auditorium, Southern California Edison Building

Joint Meeting with the Section on General Practice

2:00—**Relation of Nutrition to Health in an Aging Population—A Four-Year Follow-Up**—Harold D. Chope, M.D., and Warren Hall, M.D., Redwood City.

Discussion by Lester Breslow, M.D., Berkeley.

2:30—**Cardiac Screening Procedures**—Edward Phillips, M.D., Los Angeles.

Discussion by William Paul Thompson, M.D., Los Angeles.

3:00—**Dividends from Chest X-Ray Survey Method as a Means of Detecting Lung Cancer**—Lewis W. Guiss, M.D., Los Angeles.

Discussion.

3:30—**Recess.**

3:40— **Panel Discussion**

Evaluation of Gamma Globulin Prophylaxis

Moderator: Wilson G. Smillie, M.D., New York City, by invitation.

The Private Physician—Albert J. Sheldon, M.D., Santa Ana.

The Health Officer — Edward Lee Russell, M.D., Santa Ana.

The Epidemiologist—John M. Chapman, M.D., Los Angeles, by invitation.

Question and Answer Period.

CALIFORNIA CONFERENCE OF LOCAL HEALTH OFFICERS

THURSDAY, MAY 13, and
FRIDAY, MAY 14

Conference Room 4, Biltmore Hotel
9:30 a.m. to 5:00 p.m.

RADIOLOGY

Chairman . . . . . Calvin L. Stewart, M.D., San Diego
Secretary . . . . . Harold R. Morris, M.D., San Bernardino
Assistant Secretary . . . . . Merrell A. Sisson, M.D., San Francisco

CALVIN L. STEWART
Chairman

HAROLD R. MORRIS
Secretary

MONDAY, MAY 10

9:00—Conference Room 1, Biltmore Hotel

9:00—**Radiation Therapy of Cancer of the Tongue**—Frank C. Binkley, M.D., Pasadena.
Discussion by Charles E. Grayson, M.D., Sacramento.

9:30—**Diagnosis and Treatment of Intussusception**—E. J. Denenholz, M.D., and George S. Feher, M.D., Modesto.
Discussion by James B. Irwin, M.D., San Diego.

10:00—**Detection of Small Lesions of the Large Bowel**—J. Maurice Robinson, M.D., San Francisco.
Discussion by Henry C. Crozier, M.D., Los Angeles.

10:30—**Recess — Business Meeting and Election of Officers.**

10:40—**The Use of Radioactive Chromic Phosphate in Ascites and Pleural Effusions**—Melville L. Jacobs, M.D., Beverly Hills.
Discussion by Robert S. Stone, M.D., San Francisco.

11:10—**Techniques, Advantages, and Disadvantages of the 0.3 mm. Focal Spot Tube**—Martin S. Abel, M.D., Berkeley.
Discussion by H. I. Amory, M.D., San Francisco.

11:40—**The Responsibility of Radiologists to Their Technicians**—Maurice M. Haskell, M.D., Long Beach.
Discussion by Wilbur Bailey, M.D., Los Angeles.

MONDAY, MAY 10

2:00—Conference Room 1, Biltmore Hotel
Joint Meeting with Section on Urology

2:00—**Chairman's Address: The Role of the Radiologist in Urological Problems**—Calvin L. Stewart, M.D., San Diego.

2:40— **Panel Discussion**

Information, Please

Diagnostic Session on Urological Problems

Moderator: L. Henry Garland, M.D., San Francisco
Radiologists: John D. Camp, M.D., Los Angeles, and Dan Tucker, M.D., Oakland.
Urologists: Roger W. Barnes, M.D., Los Angeles, and Donald R. Smith, M.D., San Francisco.
Questions from the floor.

TUESDAY, MAY 11

9:00—Conference Room 2, Biltmore Hotel

9:00—**The Roentgen Aspects of Operable Heart Disease**—Herbert L. Abrams, M.D., San Francisco.
Discussion by George Jacobson, M.D., Los Angeles.

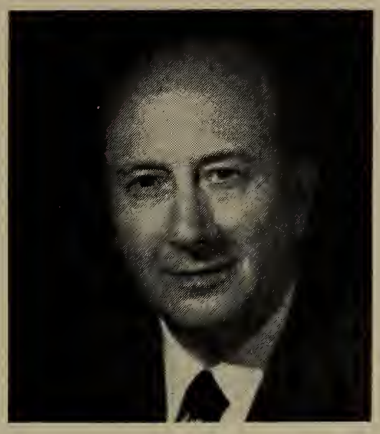
9:30—**Common Lesions of the Neck and Shoulder and the Part that Roentgen Rays Play in These Conditions**—M. L. Pindell, M.D., Beverly Hills.
Discussion by William W. Saunders, M.D., San Francisco.

10:00—**Hypertrophic Antral and Pyloric Musculature in the Adult**—Isamu Nieda, M.D., and A. A. de Lorimier, M.D., San Francisco.
Discussion by Kenneth S. Davis, M.D., Los Angeles.

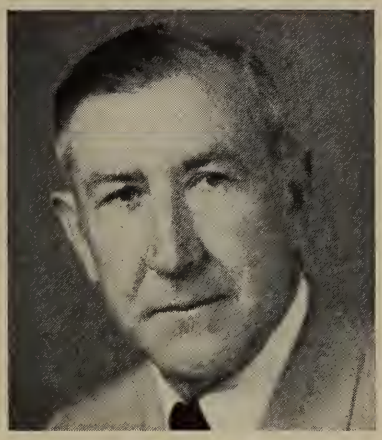
10:30—**Recess—Annual Meeting of the Pacific Roentgen Society.**

UROLOGY

Chairman . . . . . James A. May, M.D., San Diego
Secretary . . . . . Thomas I. Buckley, Oakland
Assistant Secretary . . . . . Wilson Stegeman, Santa Rosa



JAMES A. MAY
Chairman



THOMAS I. BUCKLEY
Secretary

MONDAY, MAY 10

2:00—Conference Room 1, Biltmore Hotel
Joint Meeting with Section on Radiology

For Program, see Section on Radiology

TUESDAY, MAY 11

9:00—Conference Room 1, Biltmore Hotel

9:00—**Clinical Experience with the Artificial Kidney and Related Procedures**—Peter F. Salisbury, M.D., Los Angeles.
Discussion opened by Willard E. Goodwin, M.D., Los Angeles.

9:30—**Preventive Aspects of Male Infertility**—Murray Russell, M.D., Beverly Hills.
Discussion.

10:00—**Renal and Ureteral Type Pain**—H. Spencer Hoyt, M.D., Monterey.
Discussion opened by Ernest Bors, M.D., Long Beach.

10:30—**Office Use of Trilene with the Duke Inhaler**—Andrew E. Thuesen, M.D., Santa Rosa.
Discussion.

11:00—**Carcinoma of the Prostate Involving the Rectum—A Diagnostic Challenge**—Chester Winter, M.D., by invitation, Los Angeles.
Discussion by Charles Taylor, M.D., Beverly Hills, and Burton Smith, M.D., Santa Monica.

TUESDAY, MAY 11

2:00—Conference Room 1, Biltmore Hotel

2:00—**Chairman's Address**—James A. May, M.D., San Diego.

2:30—**Urological Aspects of Metabolic Bone Disease**—Milton L. Rosenberg, M.D., San Francisco.
Discussion opened by Carl E. Burkland, M.D., Sacramento.

3:00—**Cineradiography in Vesical Physiology**—Frank Hinman, Jr., M.D.; Gerald Miller, M.D., by invitation; and Earl R. Miller, M.D., San Francisco.
Discussion opened by W. E. Goodwin, M.D., Los Angeles.

3:30—**Lower Nephron Nephrosis Due to Toxic Solvents**—William Casey, M.D., and Wilford Woolf, M.D., Torrance, both by invitation.
Discussion opened by Baldwin Lamson, M.D., Los Angeles.

4:00—**Massive Retroperitoneal Cellulitis Simulating Retroperitoneal Sarcoma, Obstruction of the Left Ureter and Complete Clinical Recovery without Surgical Mobilization of the Ureter**—David Rosenbloom, M.D., Los Angeles.
Discussion.

4:30—**Business Meeting and Election of Officers.**

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Scientific Exhibits

Main Galeria and North Galeria, Biltmore Hotel

• *Main Galeria*

Artificial Kidney and Some Results of Its Clinical Application—Peter F. Salisbury, M.D., Los Angeles.

Tumors of the Larynx—Mervin C. Myerson, M.D., Beverly Hills.

• *North Galeria*

Lesions of the Optic Chiasm—C. H. Shelden, M.D., Robert H. Pudenz, M.D., Donald B. Freshwater, M.D., Pasadena; and Mr. Zolton Yuhasz, Pasadena, by invitation.

• *North Galeria*

Transvaginal Peritoneoscopy (Culdoscopy) — A. R. Abarbanel, M.D., Los Angeles.

Methods of Evaluating the Menstrual Cycle—Edward T. Tyler, M.D., Los Angeles.

Magnification Techniques with Ultra-Fine Focal Spot X-ray Tube—Martin S. Abel, M.D., Berkeley.

Organizational Exhibits

Main Galeria, Biltmore Hotel

C.M.A. Public Relations Department
C.M.A. Blood Bank Commission
C.M.A. Committee on Postgraduate Activities
U.S. Food and Drug Administration
California Physicians' Service
Audio-Digest Foundation
Woman's Auxiliary to the C.M.A.
California League of Nursing

Television Schedule

Committee on Television—George C. Griffith, M.D., Chairman

Arranged with the cooperation of the Los Angeles County Hospital, and produced through the courtesy of Smith, Kline & French Laboratories

MONDAY, MAY 10

9:00—Renaissance Room, Biltmore Hotel

Cardiac Surgery

A Cardiovascular Conference

9:00-11:00 a.m.

Richard S. Cosby, M.D., Coordinator

Participants: Robert W. Oblath, M.D., Internist; George Jacobson, M.D., Radiologist; Judson S. Denson, M.D., Anesthesiologist; Frank Byron, M.D., and B. W. Meyer, M.D., Surgeons; Urban Eversole, M.D., Montreal, Canada, Guest Anesthesiologist, and Henry Swan, M.D., Denver, Colorado, Guest Surgeon.

1. Medical Examination and Consultation.
2. Operation—Mitral Valvulotomy.

MONDAY, MAY 10

2:00—Renaissance Room, Biltmore Hotel

Problems of the Newborn and Young Infant

2:00-3:30 p.m.

Robert Cleland, M.D., Coordinator

Participants: Bernard Hanley, M.D., Obstetrician; Alonzo B. Cass, M.D., and Stephen W. Royce, Jr., M.D., Pediatricians.

1. Care and Resuscitation of the Newborn Infant.
2. Care of the Premature Infant.
3. Care of the Normal Infant Through the First Year.
4. Obstetrical Problems—Operative Clinic.

TUESDAY, MAY 11

9:00—Renaissance Room, Biltmore Hotel

Portal Hypertension

9:00-10:30 a.m.

David C. Levinson, M.D., Coordinator

Participants: Donald C. Balfour, Jr., M.D., Telfer B. Reynolds, M.D., Internists; Milton R. Hales, M.D., Pathologist; William P. Mikkelson, M.D., and Arthur C. Pattison, M.D., Surgeons.

1. Emergency Care of Patients with Hemorrhage from Esophageal Varices.
2. Causes of Portal Hypertension.
3. The Nature of the Circulatory Disturbance in Cirrhosis—Demonstration on a Model.
4. Hepatic Artery—Portal Vein Shunts—Demonstration on a Model.
5. Casts of the Liver Circulation in Cirrhosis—Demonstrations on Models.
6. Indirect Method of Measuring Portal Venous Pressure—Demonstration on a Model.
7. The Cardiac Catheter in Place—Demonstration with Patient in Surgery.
8. The Clinical Use of Hepatic Vein Wedge Catheterization in Portal Hypertension.
9. Medical Treatment for Mild Portal Hypertension.
10. Medical Treatment of Patient Too Ill for Operation.
11. Typical Surgical Case—Portacaval Anastomosis.
12. Diagnosis in Obscure Case.
13. Extrahepatic Portal Hypertension.
14. Question and Answer Panel.

TUESDAY, MAY 11

2:00—Renaissance Room, Biltmore Hotel

Radioactive Isotopes in Medicine

2:00-3:00 p.m.

William Goodwin, M.D., Coordinator

Participants: John Backus, Ph.D., Paul H. Deeb, M.D., Ralph Adams, M.D., Franz K. Bauer, M.D., Boris Catz, M.D., Gurth Carpenter, M.D., Henry L. Jaffe, M.D., Paul Starr, M.D., and John H. Lawrence, M.D.

1. Fundamentals of Nuclear Physics—Discussion and Demonstration—John Backus, Ph.D.
2. Thyroid Uptake and the Basic Mechanisms Involved—A Demonstration—Paul H. Deeb, M.D., and Ralph Adams, M.D.
3. Scanning Techniques—A Demonstration—Franz K. Bauer, M.D.
4. Treatment of Hyperthyroidism and Carcinoma of the Thyroid—A Discussion—Boris Catz, M.D.
5. Treatment of Hematological Diseases with Isotopes—A Discussion—Gurth Carpenter, M.D.
6. Intracavitary and the Interstitial Use of Radioactive Colloidal Chromic Phosphate for Palliatibe treatment of Certain Malignant Lesions—A Demonstration—Henry L. Jaffe, M.D.
7. The Procurement of Isotopes—A Discussion—Paul Starr, M.D.

THURSDAY, MAY 13

9:00—Renaissance Room, Biltmore Hotel

Diagnosis and Management of Neurological Diseases

9:00-10:30 a.m.

J. M. Nielsen, M.D., Coordinator

1. Minimal Neurological Examination.
2. Spasticity.
3. Parkinson Syndromes.
4. Cerebellar Ataxia—Two Syndromes
   (a) Midline Cerebellar Lesion
   (b) Disease of Cerebellar Lobules
5. Cerebellar Tests.
6. Threatened Cerebral Thrombosis
7. Whiplash Injury of the Neck
   (a) Acute Syndrome
   (b) Chronic Syndrome
8. Early Epilepsy—Not a Disease but a Symptom.

Motion Picture Program

Arthur E. Smith, M.D., D.D.S., Los Angeles, Chairman

Galeria Room, Biltmore Hotel

A carefully selected showing of approximately 100 medical motion pictures will be held in the Galeria Room, Biltmore Hotel, during all or part of each day of the meeting.

On Monday and Tuesday, May 10 and 11, films will be shown from 9 a.m. to 5:30 p.m.

On Wednesday, May 10, the afternoon and evening hours, from 12:30 to 5:30 p.m., and from 7 to 11 p.m., will be used, and on Thursday, May 13, films will be shown from 9 a.m. to 3 p.m.

A full schedule showing the times and titles of each film will appear in the program distributed at the annual session.

WOMAN'S AUXILIARY *to the* CALIFORNIA MEDICAL ASSOCIATION

Twenty-Fourth Annual Convention, May 9 to 11, 1954

Headquarters: Biltmore Hotel, Los Angeles

MRS. CARL BURKLAND, President

MRS. FREDERICK J. MILLER, President-Elect

Convention Chairman: MRS. ROBERT B. HOPE

REGISTRATION—MAIN GALERIA

Sunday, May 9—9:00 a.m. to 12:00 noon
1:00 p.m. to 4:00 p.m.

Monday, May 10—8:30 a.m. to 12:00 noon
1:00 p.m. to 4:00 p.m.

Tuesday, May 11—8:30 a.m. to 12:00 noon

SUNDAY, MAY 9

8:00 a.m.—Executive Committee meeting, in Conference Room No. 3, Hotel Biltmore.

9:30 a.m.—Annual Report of the Woman's Auxiliary by the President, Mrs. Carl Burkland, to the California Medical Association, House of Delegates, Renaissance Room, Hotel Biltmore. Auxiliary members and doctors' wives are invited to attend.

10:30 a.m.—Pre-Convention Board Meeting, Conference Room No. 8, Hotel Biltmore.

5:00 to 7:00 p.m.—Reception honoring Mrs. John W. Green, wife of the President of the California Medical Association, Galeria Room, Hotel Biltmore. All doctors' wives and their husbands are cordially invited.

MONDAY, MAY 10

9:00 a.m.—Formal opening of the Twenty-fourth Annual Meeting of the Woman's Auxiliary to the California Medical Association, Burdette Hall, Baptist Church, 5th and Olive Streets. Mrs. Carl Burkland, President, presiding.

2:15 to 4:15 p.m.—Afternoon meeting.

7:30 p.m.—Dinner and ball in honor of the California Medical Association President, Dr. John W. Green, Biltmore Bowl, Hotel Biltmore. Dress optional.

TUESDAY, MAY 11

9:00 a.m.—General Meeting of the Woman's Auxiliary to the California Medical Association, Burdette Hall. Mrs. Carl Burkland, President, presiding.

1:00 p.m.—Annual Luncheon in honor of Mrs. Carl Burkland, Mrs. Frederick Miller, Past State Presidents and Members of the State Advisory Board, Biltmore Bowl, Hotel Biltmore.

3:00 p.m.—Post-Convention Board Meeting, Conference Room No. 8, Hotel Biltmore. Mrs. Frederick Miller, presiding.

ENTERTAINMENT

Live television and radio broadcast tickets will be available for members and guests. The May 10th President's dinner and ball tickets may be purchased at the C.M.A. registration desk in the Ballroom. The May 11th luncheon tickets may be obtained at the Auxiliary registration desk.

Technical Exhibits

The technical exhibitors will be housed this year in the Ballroom, the Ballroom Foyer, and the Music Room. There will be 98 exhibitors, displaying the newest products and services for the benefit of those attending the meeting.

Exhibits have been arranged to allow a maximum of space for circulation and for visiting with the exhibitors.

All physicians and their registered assistants are welcome in the exhibit areas and it is hoped that all will take advantage of this opportunity to refresh themselves on everything that is new and good in the science and art of medical practice. Only at annual meetings is such a display available.

Under the five-day meeting schedule this year, ample time will be available for visiting the exhibits. Please take this time to visit with the exhibitors, to learn about new items for yourself and to show your exhibitors that you appreciate their substantial contribution to your annual session.

A list of exhibitors and their displays is given below.

Room and Booth No.

ABBOTT LABORATORIES — Ballroom—48
North Chicago, Illinois

Abbott Laboratories will exhibit IBEROL, a therapeutic iron and vitamin tablet which offers effective control of hypochromic microcytic anemia.

Each IBEROL tablet represents 0.35 Gm. Ferrous Sulfate, U.S.P., and the following nutritional constituents: Thiamine hydrochloride, 2 mg.; riboflavin, 2 mg.; nicotinamide, 10 mg.; pyridoxine hydrochloride, 1 mg.; pantothenic acid (as calcium pantothenate), 2 mg.; folic acid, 1.7 mg.; ascorbic acid, 50 mg., and liver fraction (three parts 70% alcohol-insoluble fraction and one part 70% alcohol-soluble fraction), 0.5 Gm.

Three IBEROL tablets daily supply 210 mg. of elemental iron for the increase of hemoglobin in the treatment of iron deficiency anemia. This dose also supplies six times the minimum daily requirement for thiamine hydrochloride, three times the MDR for riboflavin, five times the MDR for ascorbic acid, 1½ times the recommended daily dietary allowance of nicotinamide, 3 mg. of pyridoxine hydrochloride, 6 mg. of pantothenic acid, 5.1 mg. of folic acid and 1.5 Gm. of liver fraction.

A. S. ALOE COMPANY — Ballroom Foyer—3
Los Angeles

We will have on display our own exclusive Steeline Examining and Treatment room furniture. This equipment is new in design and has many very attractive features. Also for your inspection: Laboratory and Physiotherapy equipment including the latest in Ultra Sonic Machines.

AMES COMPANY, INC. — Music Room—63
Elkhart, Indiana

CLINITEST, with urine sugar, according to an article in the November-December issue of the *American Journal of Medical Technology*, is standardized, which assures uniformly reliable results whenever and wherever a test is performed—office, ward, clinic, or patient's home. Standardization not only curtails error, but saves personnel's time by elimination of preparing and mixing of reagents.

ACETEST for Acetonuria, BUMINTEST for Albuminaturia, HEMATEST for occult blood, and ICTOTEST for Bilirubin will also be on display.

Room and Booth No.

THE ARMOUR LABORATORIES — Music Room—82
Chicago, Illinois

HP ACTHAR Gel, the Armour Laboratories' brand of purified corticotropin (ACTH) is featured at the Armour Laboratories booth, with particular emphasis on the use of HP ACTHAR Gel and in allergic manifestations such as contact dermatitis, weed and pollen allergies and skin sensitivities. We will also feature Armyl, Armatinic and Biopar.

AYERST, McKENNA & HARRISON LIMITED — Ballroom—46
New York, New York

Your are cordially invited to visit booth No. 46 to relax and discuss the Ayerst line of prescription specialties with our representatives. Literature and information relative to "Premarin" may be had at the booth. Representatives will be pleased to discuss new developments with you, answer any questions, or just have you visit. Here is an opportunity to become better acquainted with us.

BABY DEVELOPMENT CLINIC — Ballroom—49
Chicago, Illinois

Maternity Counselling Service offers you demonstration material to aid in teaching expectant mothers: care and support of breast; support of abdomen and relief of back strain; personal hygiene and cleanliness. Preparation for infant and child care aids on bathing; feeding, toileting as well as care of feet. Material also available for well baby conferences.

THE BAKER LABORATORIES, INC. — Music Room—81
Cleveland, Ohio

You are invited to visit the Baker booth where you will receive a cordial welcome. Baker's Modified Milk and Varamel, two successful products for infant feeding, are on display.

Baker representatives will be glad to discuss with you the practical application of Grade A Milk, adjusted fat composition, zero curd tension, synthetic vitamins and other important factors which help to eliminate many of the problems in modern infant feeding.

Room and Booth No.

BARNES-HIND LABORATORIES, INC.
San Francisco — Music Room—92

Barnes-Hind Laboratories wishes to bring to the attention of the physician its sedative product TRANQUINAL. TRANQUINAL is indicated wherever true sedation is desired: anxiety states, certain gastrointestinal disorders, functional nervousness and stress in women, temperamental excitability, over-stimulus from amphetamines and like drugs. The advantages of TRANQUINAL are that TRANQUINAL is free of side- and after-effects, has a tremendous margin of safety (useful in the psychologically imbalanced patient), replaces atropine-hypnotic combinations advantageously in alimentary disorders, and is of foremost importance in daytime sedation since it tranquilizes the patient while avoiding the well-known disadvantages of barbiturates.

DON BAXTER, INC. — Ballroom Foyer—9
Glendale

Your Baxter representatives welcome this opportunity to discuss with you: CALORIGEN 1500, the well-tolerated, high-calorie tubal nutrient for nasogastric feeding; DEXTRAN, a plasma volume expander; and a full line of intravenous solutions in the VACOLITER container including ISOLYTE, KADALEX, and HYPROTIGEN. New improved all-plastic intubation tubes and administration sets will be available for your inspection.

BEECH-NUT PACKING COMPANY — Ballroom—32
Canajoharie, New York

Have you used the Beech-Nut Strained and Junior Foods for your GERIATRIC as well as your PEDIATRIC patients? Beech-Nut nutritionists will be present to answer any questions you may have regarding the products available for special feedings.

THE BORDEN FOOD PRODUCTS COMPANY
San Francisco — Ballroom Foyer—17

Elsie invites you to visit The Borden Company booth. Printed material and information on various uses of Borden's Evaporated Milk and Starlac will be available. Come, pause for a moment, and join us in a cup of delicious Borden Instant Coffee.

THE BORDEN COMPANY — Ballroom—31
New York, New York

There's no better place to talk over the latest information on infant feeding than the Borden Prescription Products booth. On display is the complete line of Borden infant formula products for every feeding purpose or preference. If you're encountering hyperirritability or excoriation, you'll be interested in BREMIL, a formula patterned upon breast milk. If you suspect milk allergy in some of your patients, you'll find the answer in MULL-SOY, leading hypoallergenic food (Liquid or Powdered). For prematures, or for digestive disturbances demanding low fat and high protein, DRYCO provides an ideal, flexible formula base. And if your preference is for liquid products, you'll want the latest facts about BIOLAC.

Room and Booth No.

BOYLE & COMPANY — Ballroom—33
Los Angeles

Featuring TRIVA for vaginitis; the Boyle HEMATINICS; Boyle PRE-NATALS; OPIDICE an aid in obesity management; our vitamin-mineral combination DEIMAL; and tandem action sedative PENTO DEL.

GEORGE A. BREON & CO. — Ballroom—"B"
San Francisco

George A. Breon & Co., distributors of Lanteen products, invites convention members to their exhibit of reproduction of well-known paintings by famous European artists at booth "B". Lithographic prints of these beautiful paintings are available upon request. Representatives will also be happy to discuss Lanteen products with visiting members.

A. M. BROOKS COMPANY — Ballroom Foyer—8
Los Angeles

We extend a sincere welcome to our many friends to visit us, in booth No. 8, where we shall exhibit electro-medical and physical therapy equipment, as follows: Raytheon MICROTHERM, (microwave) diathermy, Ultrasonic machines, Electrocardiographs (ink-writer and hot stylus), Ballistodyne Ballistocardiograph, Electrosurgical units, Audiometers, AMBCO Hearing Amplifier, portable, Ultraviolet and Infra Red Lamps, Rehabilitation equipment such as Restorator Exerciser, Anatomotor Exerciser Table, etc. Competent salesmen on hand at all times for information and demonstration of equipment.

BROWN & WILLIAMSON TOBACCO CORPORATION
Louisville, Kentucky — Ballroom—"A"

The exclusive Health-Guard Filter Tip in the VICEROY King Size Cigarette provides beneficial protection to the smoker against nicotine and tars. The 20,000 tiny filtering traps in each VICEROY Filter effectively remove far more nicotine and tars than any other leading cigarette, as proved by testing methods accepted by the United States Government. An explanation of the unique advantages in smoking VICEROY will be of real interest to members and guests who visit the VICEROY exhibit.

BURROUGHS WELLCOME & CO. (U.S.A.) INC.
Tuckahoe, New York — Music Room—88

'*Marezine*' Hydrochloride brand Cyclizine Hydrochloride —prevents and relieves motion sickness and vertigo without causing drowsiness.

Syrup of '*Antepar*' Citrate brand Piperazine Citrate—eradicates pinworms. Pleasant to take.

'*Tricoloid*' brand Tricyclamol — Compressed, sugar-coated—new anticholinergic for relief of hyperacidity, functional diarrheas and gastrointestinal spasm.

ELDON H. CANRIGHT COMPANY, INC. — Music Room—80
Glendale

You are cordially invited to stop by our booth where qualified, courteous representatives will appreciate the opportunity of discussing a Canright specialty formula with you.

Room and Booth No.

CARNATION COMPANY — Ballroom—59

Los Angeles

You are cordially invited to visit the Carnation Company booth No. 59, where you will see an attractive display featuring colorful translites of famous Carnation Babies. Medical representatives will explain the reasons why Carnation Milk deserves consideration as your first choice for infant feeding, child feeding and general diet uses. Valuable literature will also be available for distribution.

CIBA PHARMACEUTICAL PRODUCTS, INC.

Summit, New Jersey — Ballroom Foyer—1

The Ciba exhibit (Booth No. 1) will feature SERPASIL, a pure crystalline alkaloid of Rauwolfia which usually produces mild, gradual, sustained lowering of blood pressure with a slowing of the pulse rate.

Representatives in charge of the Ciba booth will be pleased to discuss the role of SERPASIL in the treatment of hypertension and to furnish literature on this new drug.

THE COCA-COLA COMPANY — Music Room—69

Atlanta, Georgia

Ice cold Coca-Cola served through the courtesy and cooperation of the Coca-Cola Bottling Co. of Los Angeles and The Coca-Cola Company.

CONTINENTAL MEDICAL BUREAU, Agency

Los Angeles — Music Room—67

Continental Medical Bureau, Agency will be represented in booth No. 67. Stop here if you wish to review information on doctors or other medical personnel available for positions. Also register here if you are seeking a new location. This Bureau covers all western and southwestern states in addition to all areas of California, Hawaii, Alaska, Foreign. No registration fee. Information gladly. (Helen Buchan, Director.)

CUTTER LABORATORIES — Ballroom Foyer—4

Berkeley

Cutter Laboratories, booth No. 4, will display "Alhydrox" adsorbed toxoids and combined vaccines as well as the exclusive human blood fractions—Albumin, Hypertussis and the new human fibrinogen—Parenogen.

Also on exhibit will be the complete Cutter Saftiflask Solutions line, featuring the Saftitab Stopper—safer because it's solid, yet with open stopper convenience. The new built-in "Bend-the-Blue" Safticlamp on IV, blood and plasma infusion equipment will be demonstrated. At no extra cost this revolutionary new clamp provides precision control of fluid with just one hand. The Safticlamp is on all Cutter, all-plastic, expendable sets which are designed for safe pressure administration.

F. A. DAVIS COMPANY — Music Room—91

Philadelphia, Pennsylvania

The New Loose Leaf Cyclopedia of Medicine, Surgery and Specialties will be on display. Be sure to see the 1954 Loose Leaf Revision pages just issued. Also our medical textbooks, among them the new Hale *Clinical Anesthesia* and Ficarra *Emergency Surgery*, and new editions of Goodale *Clinical Interpretations of Laboratory Tests;* Alpers *Clinical Neurology* and Judovich and Bates *Pain Syndromes.*

Room and Booth No.

DESITIN CHEMICAL COMPANY — Ballroom—50

Providence, Rhode Island

Desitin Ointment: the pioneer in external cod liver oil therapy. Indications: diaper rash, slow healing wounds, burns of all degrees, lacerations, hemorrhoids and fissures.

Desitin Powder: a unique, dainty medicinal powder saturated with cod liver oil.

Desitin Hemorrhoidal Suppositories with Cod Liver Oil: coats ano-rectal area with soothing, lubricating cod liver oil, gives prompt relief of pain, allays itching.

Desitin Lotion: the original cod liver oil lotion, soothing, protective, mildly astringent and healing, in nonspecific dermatitis, pruritus, poison ivy, etc.

DEVEREUX SCHOOLS — Music Room—84

Devon, Pennsylvania

Large color photos of the school campus and leather, ceramic and jewelry items made by the children are featured in the Devereux Schools exhibit.

The Devereux Foundation offers "tailor made" education for children who are unable to adjust themselves in the public schools—either because of emotional, academic or intellectual problems.

In a boarding school setting, the Devereux Schools offer the finest educational and clinical facilities plus an outstanding staff of specialists to assist physicians to meet the need of their school age patients who are failing in their home communities.

THE DIETENE COMPANY — Ballroom—54

Minneapolis, Minnesota

Visit our exhibit and examine the free Diet Service for physicians. The diets are nutritionally well-balanced, easy to follow and made to appear as if they were typed in your office.

MERITENE, the economical and palatable whole protein supplement and DIETENE, the "Council-Accepted" Reducing Supplement will be on display.

DOHO CHEMICAL CORPORATION — Ballroom—26

New York, New York

Doho Chemical Corporation exhibits AURALGAN, the time-honored decongestant and pain reliever in Otitis Media, also for removal of Cerumen; RHINALGAN, the equally safe nasal decongestant for infants and the aged; NEW OTOSMOSAN, the fungicidal and bactericidal ear medication.

Mallon Chemical Corporation, a subsidiary, features RECTALGAN, the liquid topical anesthesia for relief of pain and discomfiture in hemorrhoids, pruritus and perineal suturing.

ENCYCLOPEDIA AMERICANA — Ballroom Foyer—11

Beverly Hills

The Americana Corporation proudly presents the greatest of all Americana Encyclopedias. Since 1949 three-fourths of the Americana text has been *completely revised and reset.* Thousands of new illustrations, the 1950 official census figures and new maps have been added, plus, over 300 new articles on American and Canadian cities never before in the set. Complete with year book and research privileges to keep its owners fully up to date. This new edition carries highest rating with our public schools, universities, colleges, libraries, government offices and better homes. Convenient terms if desired. Without any obligation we cordially invite your inspection.

Room and Booth No.

ENCYCLOPAEDIA BRITANNICA, INC. Music Room—87

Los Angeles

Encyclopaedia Britannica—EB's Biggest Revision in a Quarter of a Century! The 1954 Edition of Encyclopaedia Britannica is a new milestone in Britannica's 188-year-history, representing, as it does, the biggest revision—in a quarter of a century—of what has long been acknowledged as the world's most authoritative reference work. Approximately 3½ million word changes are involved in revisions affecting over 4,000 articles.

ENDO PRODUCTS Music Room—77

Richmond Hill, New York

Endo representatives will be discussing BALARSEN TABLETS, a new A.M.A. Council Accepted Arsenical (Arsthinol) for the treatment of amebiasis. CUMERTILIN TABLETS and AMPOULES, a new A.M.A. Council Accepted Organic Mercurial Diuretic (Mercumatilin). HYCODAN TABLETS and SYRUP, the A.M.A. Council Accepted Codeine derivative (dihydrocodeinone bitartrate) for COUGH only. LAURON, the A.M.A. Council Accepted Organic Gold (Aurothioglycanide) for Rheumatoid Arthritis.

CHARLES O. FINLEY & COMPANY Ballroom—27

Los Angeles

Come discuss your disability insurance problems concerning your own California Medical Association Group Disability Insurance.

C. B. FLEET CO., INC. Ballroom Foyer—22

Lynchburg, Virginia

During the past fifty years, Phospho-Soda (Fleet) has been a symbol of elegance in sodium phosphate medication. FLEET ENEMA DISPOSABLE UNIT—an enema solution of Phospho-Soda (Fleet)—is a worthy companion product. The single-use unit simplifies and assures satisfying preparation for proctoscopy and as a routine enema; it is a boon to the hospitalized patient.

E. FOUGERA & COMPANY, INC. Music Room—78

New York, New York

E. Fougera & Co., Inc. and Division, Varick Pharmacal Co., cordially invite physicians to discuss with Professional Service Representatives new preparations of importance to their every day practice. Descriptive literature and samples of all products will be available.

GEIGY PHARMACEUTICALS Music Room—60

New York, New York

The Geigy Exhibit features Council-accepted BUTAZOLIDIN (brand of phenylbutazone), an orally effective compound which has achieved great clinical success in the treatment of rheumatoid disorders. Also on display will be Council-accepted TROMEXAN, an oral anticoagulant of rapid action and little cumulation; EURAX Cream, a long-acting, non-sensitizing, antipruritic and scabicide; and PANPARNIT, indicated for symptomatic relief of Parkinson's Disease.

Room and Booth No.

GENERAL ELECTRIC COMPANY Ballroom Foyer—2

Milwaukee, Wisconsin

The new General Electric Imperial will be displayed. Look at the flexibility you get with a new General Electric Imperial. No other diagnostic x-ray unit approaches the flexibility offered by the new General Electric Imperial.

GERBER PRODUCTS COMPANY Music Room—85

Fremont, Michigan

When milk is contraindicated as the basic food for infants, Gerber's "Meat Base Formula" can provide a nutritionally adequate replacement. It is well accepted and tolerated by infants of all ages.

Your Gerber detailman invites you to evaluate "Meat Base Formula" and the complete line of supplementary baby foods. You are also invited to review new editions of Gerber's baby care and adult special diet booklets. Each is designed especially for distribution by physicians. Each provides non-controversial information in simple, easy-to-understand language. The service is complimentary.

JOHN F. GREER COMPANY Ballroom Foyer—16

Oakland

The John F. Greer Company will demonstrate the Greer Colostomy Compact in booth No. 16. Miss Jayne Greer will be in the booth to discuss any special appliance problems. Let us tell you about "Derma-Guard," the gum protective powder introduced at the American College of Surgeons meeting in October.

H. J. HEINZ COMPANY Ballroom—57

Pittsburgh, Pennsylvania

Heinz now presents Baby Foods in glass. The newer varieties are Strained Cream of Tuna and Junior Chicken Noodle Dinner. Strained Orange Juice, in tin of course, is featured also. You may wish to see the plastic spill-proof tumbler for weaning.

For your office, there is the ever-popular Nutritional Data and Variety and Ingredient Listing Pad.

Available for your patients is the following literature: *Your Baby's Diet; Junior Foods—For Older Children; Recipe Magic—Using Heinz Strained and Junior Foods; Facts About Foods.*

HOFFMANN-LA ROCHE, INC. Ballroom—55

Nutley, New Jersey

You will find both Gantrisin and Gantricillin products featured in the Roche display. The new Gantricillin products will be of special interest to you because they provide the wider antibacterial spectrum and higher solubility of Gantrisin together with the antibacterial action of penicillin G. Our representatives will welcome your questions on these and other Roche products.

HOLLAND-RANTOS COMPANY, INC. Ballroom—42

New York, New York

Representatives will gladly discuss with interested physicians the *diffusion test for evaluation of the spermicidal time* of contraceptive preparations—with particular reference to KOROMEX Jelly and Cream. Available Koromex Diaphragm Sets will be exhibited for your inspection.

Room and Booth No.

ROGER JESSUP CERTIFIED FARM — Music Room—97
Glendale

The exhibit of Roger Jessup Certified Farm will tell the story of Certified Milk, what it is, how it is produced (methods and standards), and its nutritional values. Certified Milk has retained a position of leadership in the dairy industry which has exerted an influence far greater than the volume of its sales may indicate. It is the object of Roger Jessup Certified Farm to help retain this leadership. It is our belief that Certified Milk is the highest grade of milk obtainable. Our exhibit booth will be staffed with people who have an excellent knowledge of all phases of the production and value of Certified Milk today.

LEDERLE LABORATORIES — Ballroom Foyer—10
New York, New York

You are cordially invited to visit our exhibit in booth No. 10 where you will find our representatives prepared to give you the latest information on LEDERLE products.

LIEBEL-FLARSHEIM COMPANY OF CALIFORNIA, INC.
Oakland — Ballroom Foyer—14

Liebel-Flarsheim of California, Inc. and the W. W. Wiley Company will exhibit the Liebel-Flarsheim Model SW-660 diathermy, which utilizes the patented L-F Hinged Drum and features air-spaced plate techniques and special applications for "hard-to-treat" areas with the utility applicator.

An office model of the world-famed "bovie" electrosurgical unit will also be shown and demonstrated.

Competent, factory-trained field representatives will be on hand to assist in any way possible with technical problems and questions of application.

Your attention and patronage are earnestly solicited.

ELI LILLY AND COMPANY — Music Room—75 & 76
Indianapolis, Indiana

You are cordially invited to visit the Lilly exhibit located in space numbers 75 and 76. The display will contain information on recent therapeutic developments and will feature the story of the Lilly Junior Taste Panel. Lilly sales people will be in attendance. They welcome your questions about "Ilotycin" (Erythromycin, Lilly) and other Lilly products.

J. B. LIPPINCOTT COMPANY — Music Room—61
Philadelphia, Pennsylvania

J. B. Lippincott Company presents, for your approval, a display of professional books and journals geared to the latest and most important trends in current medicine and surgery. These publications, written and edited by men active in clinical fields and teaching, are a continuation of more than 100 years of traditionally significant publishing.

LLOYD BROTHERS, INC. — Music Room—66
Cincinnati, Ohio

The Lloyd exhibit will feature the newest concepts of treatment in the fields of gastric hyperacidity, anemia and "nervous exhaustion." Our qualified representatives will welcome an opportunity to present the latest clinical results of current research to each physician in attendance.

P. LORILLARD COMPANY — Ballroom—"D"
New York, New York

P. Lorillard Company, manufacturers of OLD GOLD and EMBASSY Cigarettes as well as BRIGGS Pipe Mixture and other famous tobacco products will exhibit and demonstrate their new KENT Cigarettes with the exclusive Micronite Filter, which takes out up to seven times more nicotine and tars than other filter cigarettes.

LOV-E BRASSIERE COMPANY — Ballroom Foyer—18
Hollywood

We invite you to inspect our highly specialized line of therapeutic breast supports which enable the physician to prescribe remedial support for specific breast conditions. Each LOV-E brassiere is custom-fitted inch-by-inch to your patient's personal measurements . . . and in exact accordance with your instructions. Special brassieres for prenatal, postpartum, atrophic, hypertrophic and mastectomy. LOV-E Corrective brassieres are available in leading department stores and corset shops throughout the West. Our representative will be very happy to answer any questions.

M & R LABORATORIES — Music Room—80
Columbus, Ohio

Your SIMILAC representatives are happy to take part in this meeting. They are pleased to have the opportunity to discuss with you the role of SIMILAC in infant feeding. They have for you the latest Pediatric Research Conference Reports. Also available are current reprints of pediatric nutritional interest.

MARLYN CO., INC. — Ballroom—51
Los Angeles

Marlyn Co., Inc. extends a cordial invitation to visit booth No. 51, where our representatives will be pleased to give you information on our featured product Test-Estrin or other products of our manufacture.

S. E. MASSENGILL COMPANY — Ballroom—28
Bristol, Tennessee

You are invited to visit the S. E. Massengill Company booth. Adrenosem, the new Massengill systemic hemostatic, is featured. Adrenosem is a specific in treating those conditions characterized by increased capillary permeability. Our representatives will be glad to discuss with you the latest information and clinical evaluation of this product.

McNEIL LABORATORIES, INC. — Ballroom—36
Philadelphia, Pennsylvania

Members of the California Medical Association are cordially invited to visit our booth No. 36, Mr. Hugh A. Harley in charge. Products to be featured are Butisol Sodium, Clistin Maleate, Butisol-Belladonna, Syndrox Hydrochloride, Algoson and Sustinex.

Room and Booth No.

MEAD JOHNSON AND COMPANY — Ballroom Foyer—12
San Francisco

Mead Johnson & Company, booth No. 12, will feature Lactum, Mead's liquid formula for infant feeding; Poly-Vi-Sol and Tri-Vi-Sol, superior vitamin supplements for infants; Panalins and Panalins-T, new vitamin capsules based on the new National Research Council's recommendations for vitamin maintenance and therapy. Natalins, the smaller, complete prenatal capsules, and Mulcin, the new orange-flavored vitamin liquid, will also be shown.

MEDCO PRODUCTS COMPANY — Ballroom—25
Tulsa, Oklahoma

The MEDCOLATOR Stimulator, for the stimulation of innervated muscle or muscle groups ancillary to treatment by massage, is a low volt generator that will generate plenty of your interest. Electrical muscle stimulation is a valuable form of rehabilitation therapy. Be sure to visit our booth for a personal demonstration.

THE MEDICAL CENTER AGENCY — Ballroom Foyer—21
San Francisco

The Medical Center Agency, San Francisco, has for many years been the placement Center for physicians. If you are seeking a well-qualified colleague or new member for your staff, you will find the Medical Center Agency able to offer you the opportunity to choose from many applicants. Our complete registry of Specialists and General Practitioners enables you to select not only a man with ability but offers you a wide choice of personalities for a pleasant, cooperative associate.

If you are a physician looking for an association with an established group or individual in your special field, please stop at our booth to discuss available opportunities.

Interviews and listings will, of course, be treated with every confidence. (Norma Rohl, Director.)

THE MEDICAL PROTECTIVE COMPANY
Fort Wayne, Indiana — Ballroom Foyer—15

Having completed another year in which not a single policyholder suffered involuntary loss from his own pocket in a malpractice claim or suit defended by this unique organization, despite large losses reported elsewhere, The Medical Protective Company, Specialists in Professional Protection Exclusively since 1899, invite your visit with its representatives at booth No. 15. Answers to problems in the Doctor-Patient relationship are yours for the asking.

THE WM. S. MERRELL COMPANY — Ballroom—56
Cincinnati, Ohio

TACE, the unique non-steroid developed by Merrell, *offers a new approach to the treatment of the menopause.*

TACE is temporarily stored in body fat, and released over an extended period of time. One course of TACE therapy is generally all that is required to ease many patients into the symptom-free postmenopausal period. Symptom relief is excellent, and side effects are virtually absent.

Merrell professional service representatives will be present to answer any questions you may have concerning this new and distinctive estrogen. They will be happy to discuss other Merrell specialties as well.

Room and Booth No.

MILLER SURGICAL COMPANY — Music Room—83
Burbank

ILLUMINATION AT ITS BEST! Featuring electrically lighted otoscopes, ophthalmoscopes, eye-spuds, vaginal and rectal scopes in various sizes. Plastic or stainless steel. A portable Electro-Scalpel weighing only 19 pounds, for cutting, desiccating, fulgurating and coagulating.

Be sure to stop and see our new vaginal speculum with built-in smoke ejector; also infant pelvic and rectal instruments.

THE C. V. MOSBY COMPANY — Music Room—93
St. Louis, Missouri

A number of new books and new editions are available for the inspection of those interested at The C. V. Mosby Co., booth No. 93. There also will be a display for inspection purposes of the entire line of Medical Journals published by The C. V. Mosby Co.

NATIONAL DRUG COMPANY — Music Room—62
Philadelphia, Pennsylvania

THE NETTLESHIP COMPANY — Music Room—71
Los Angeles

Administrators of professional liability and group accident and health programs for seven County Medical Associations in Southern California. Qualified representatives available to discuss problems pertaining to hospital or individual professional liability coverage, accident and health insurance, or other types of insurance.

Literature, which will assist in the prevention of claims and various forms to be used to protect, as far as possible, against malpractice claims.

ORTHO PHARMACEUTICAL CORPORATION
Raritan, New Jersey — Music Room—72

ORTHO cordially invites you to booth No. 72 where the well known line of obstetrical and gynecological pharmaceuticals will be on display. Particular emphasis will be placed on Ortho preparations for conception control. Ortho representatives will be on hand to offer pertinent information on their products.

PARKE, DAVIS AND COMPANY — Ballroom—39
Detroit, Michigan

Medical Service members of our staff will be in attendance at our exhibit for consultation and discussion of various products of particular interest to members of the Association. Important specialties, such as Penicillin S-R, Benadryl, Ambodryl, Dilantin Suspension, Vitamins, Oxycel, Thrombin Topical, etc., will be featured. You are cordially invited to visit our exhibit.

PELTON & CRANE COMPANY — Ballroom Foyer—20
Detroit, Michigan

Those attending the California Medical Association meeting are cordially invited to visit our booth and see our fine line of autoclaves. Of special interest will be the FL-2, the LV and the HP-2 Autoclaves we will have on display.

Room and Booth No.

PERSON & COVEY — Music Room—86
Glendale

Person & Covey exhibit will feature a new RAUWOLFIA SERPENTINA preparation; HYDRAL CAPSULES, brand of Chloral Hydrate, a non-barbiturate hypnotic in tasteless, odorless gelatin capsules; and B-TANE, brand of free-base Betaine, a transmethylating agent.

PET MILK COMPANY — Ballroom—43
San Francisco

Pet Milk Company will display their new services to doctors regarding diet management and infant feeding instructions. All of these are designed to give physicians a proper adequate formula and diet information so as to conserve their time.

Samples of our new product, Pet Nonfat Dry Milk will be shown and miniature evaporated milk cans will be given to all visitors at our display.

PFIZER LABORATORIES — Ballroom—40
Brooklyn, New York

You are cordially invited to visit the Pfizer booth where you will find well-informed representatives who will be happy to supply you with information and answer any questions relative to Pfizer products. Terramycin dosage forms and Pfizer-Syntex Hormone products will be the feature attraction of the Pfizer exhibit.

PICKER X-RAY OF SOUTHERN CALIFORNIA
Los Angeles — Ballroom—38

You are cordially invited to visit our booth and see the latest in x-ray accessories. Well-informed representatives will be present to assist you in any way.

PITMAN-MOORE COMPANY — Music Room—96
Indianapolis, Indiana

Pitman-Moore Company will feature Veralba Tablets and Injection, a brand of protoveratrines A and B, for the treatment of hypertension. This product, which is Council-accepted by the American Medical Association, is the original chemically standardized brand of protoveratrines, which permits a high degree of effectiveness through accurate dose establishment.

R. J. REYNOLDS TOBACCO COMPANY
Winston-Salem, North Carolina — Music Room—64 & 65

Welcome to the CAMEL-CAVALIER exhibit! You are cordially invited to receive a cigarette case (monogrammed with your initials) containing your choice of CAMELS, America's most popular cigarette, or CAVALIERS, the king size cigarette of extra mildness and distinctive flavor.

RIKER LABORATORIES, INC. — Ballroom—29
Los Angeles

Riker Laboratories, Inc., presents Rauwiloid, Rauwiloid + Veriloid, and Rauwiloid + Hexamethonium. Rauwiloid is an alkaloidal extract obtained from the tropical plant Rauwolfia serpentina. Rauwiloid is the medication of choice in mild and moderate hypertension. In chronic, severe, fixed, or resistant hypertension, the hypotensive activity of Rauwiloid can be enhanced by the simultaneous administration of other, more potent hypotensive agents in order to produce the greater response required. For this purpose Rauwiloid + Veriloid and Rauwiloid + Hexamethonium are available and offer many advantages such as apparent potentiation of hypotensive action, reduction of dosage required, and side actions of the more potent agents.

A. H. ROBINS COMPANY, INC. — Music Room—89
Richmond, Virginia

Physicians attending the California Medical Association are extended a cordial invitation to visit the exhibit of the products of the A. H. Robins Company.

Experienced medical representatives will be in attendance to welcome you and answer inquiries relative to any of Robins' prescription specialties.

J. B. ROERIG AND COMPANY — Ballroom—"C"
Chicago, Illinois

Members of the California Medical Association are cordially invited to visit the booth of J. B. Roerig and Company. Professional Service Representatives will be on hand to welcome all interested visitors.

SANBORN COMPANY — Ballroom—58
Cambridge, Massachusetts

Latest model Sanborn instruments for clinical diagnosis to be shown at booth No. 58 will include the Viso Cardiette, direct-writing electrocardiograph, and the Metabulator, self-enclosed metabolism tester. Complete data will also be available on the Sanborn Twin and Poly Visos, two and four channel Biophysical Research recording systems, on the Sanborn Electromanometer, widely used instrument for physiologic pressure measurements, and on the new Sanborn Twin-Beam, two-channel recorder for simultaneous (or separate) recording of phonocardiograms and electrocardiograms.

SANDOZ PHARMACEUTICALS — Ballroom—41
San Francisco

This display will feature Cafergot tablets and suppositories for the treatment of migraine headache; Cedilanid, a cardiac glycoside; Hydergine for early cerebral vascular accidents, hypertensive headache and peripheral vascular disease; Fiorinal for tension headache.

W. B. SAUNDERS COMPANY — Ballroom—24
Philadelphia, Pennsylvania

A complete line of Saunders' up-to-date titles will be at the disposal of all physicians for their careful inspection. Keith Chrysler, your Saunders man, invites you to stop by.

SCHERING CORPORATION — Ballroom—35
Bloomfield, New Jersey

Members of the California Medical Association and their guests are cordially invited to visit the Schering exhibit where new therapeutic developments will be featured.

Schering representatives will be present to welcome you and to discuss with you these products of our manufacture.

Room and Booth No.

JULIUS SCHMID, INC. — Ballroom Foyer—19

New York, New York

RAMSES Gynecological Products. Julius Schmid, Inc., have prepared an interesting and informative exhibit on their products—RAMSES Flexible Cushioned Diaphragm, RAMSES Vaginal Jelly and other RAMSES Gynecological Products all of which enjoy A.M.A. Council acceptance. Introduced to the medical profession more than three decades ago, the RAMSES line today is better than ever because of the firm's continuous research and improvement.

G. D. SEARLE & CO. — Ballroom—52

Chicago, Illinois

You are cordially invited to visit the Searle booth where our representatives will be happy to answer any questions regarding Searle Products of Research.

Featured will be Vallestril, the new synthetic estrogen with extremely low incidence of side reactions; Banthine, and Pro-Banthine, the standards in anticholinergic therapy; and Dramamine, for the prevention and treatment of motion sickness and other nauseas.

SHARP & DOHME — Ballroom—47

Philadelphia, Pennsylvania

The many indications for 'Hydrocortone' or 'Cortone' highlight the therapeutic importance of these hormones in everyday practice. Research data relative to more effective therapy where penicillin is used in conjunction with 'Benemid' probenecid completes the exhibit. Expertly trained personnel solicit discussions on these observations.

SMITH-DORSEY — Music Room—94

Lincoln, Nebraska

Smith-Dorsey will feature in its exhibit two outstanding new anti-hypertensive products—RAUTENSIN and RAUVERA. RAUTENSIN represents a mixed alkaloidal extract (alseroxylon fraction) obtained from Rauwolfia serpentina. In RAUVERA, alseroxylon is combined with alkavervir, an alkaloidal fraction of Veratrum viride. RAUVERA is indicated in moderate, severe, fixed or chronic essential hypertension, while RAUTENSIN is particularly valuable as a hypotensive-sedative agent in mild and moderate hypertension. Complete literature on both products will be available at the booth. Our representatives will welcome any questions regarding these new Rauwolfia products.

SMITH, KLINE & FRENCH LABORATORIES — Ballroom—30

Philadelphia, Pennsylvania

The S.K.F. booth will feature 'Spansule'—sustained release capsules—the revolutionary new oral dosage form. Just one 'Spansule' capsule, taken on arising, provides a uniform supply of medication throughout the day. Thus, 'Spansule' capsules offer you three advantages: (1) smooth, uniform action, (2) prolonged therapeutic effect, and (3) convenient once-a-day dosage.

E. R. SQUIBB & SONS — Ballroom Foyer—23

New York, New York

At booth No. 23, E. R. Squibb & Sons features Raudixin, the *safe* hypotensive agent. Raudixin contains the whole root of Rauwolfia serpentina accurately standardized for uniform hypotensive and sedative effect. Our representative will be glad to discuss with you the advantages of Raudixin used alone or in combination with other drugs.

J. W. STACEY, INC. — Ballroom Foyer—13

San Francisco

An extensive collection of the new books in medicine and surgery will be on display by J. W. Stacey, Inc., in booth No. 13. We cordially invite you to come in and browse at your leisure and see the books reflecting progress in the fields of your special interest. Stacey's offers a composite display of the books of many publishers and annually shows only the new publications.

STAYNER CORPORATION — Music Room—68

Berkeley

Stayner Corporation hopes that your attendance here at the California Medical Association will be enjoyable and pleasant.

At booth No. 68 our representatives will be happy to see you and to discuss any of the some 120 products of our manufacture. Stayner will feature several new products which have proved of interest to the medical profession.

A new brochure on the importance of "Potassium Therapy in Medicine and Surgery" is available. To meet the growing awareness of the need of more adequate potassium replacement therapy, Stayner has developed a 15 grain (1.0 Gm.) "timed" enteric coated tablet—"PCS-15"—for convenience of administration and prescribing.

THE STUART COMPANY — Ballroom Foyer—6

Pasadena

The Stuart Company will exhibit their complete line with special information and literature on Normacid, Theron, Stuart Prenatal and Stuart Formula.

U. S. VITAMIN CORPORATION — Ballroom—37

New York, New York

See the "oil-in-water" demonstration of liposoluble vitamins A and D made completely water soluble . . . a vitamin technical achievement originated and developed by the U. S. Vitamin Corporation Research Laboratories.

Three pharmaceutical firsts . . . Vi-Syneral Vitamin Drops—multivitamins in drops solution; Vi-Syneral Injectable—multivitamin parenteral solution and now Vi-Aquamin—aqueous vitamins and minerals in a single capsule.

We cordially invite you to our booth for detailed literature and professional samples.

THE UPJOHN COMPANY — Music Room—79

Kalamazoo, Michigan

Our exhibit will feature CORTEF, brand of hydrocortisone acetate.

CORTEF is available in two forms, oral and topical. Each is applicable where cortisone is indicated. Clinical and practical reports have been very dramatic.

Upjohn representatives will be on hand to discuss CORTEF, and other Upjohn products, with interested visitors.

Room and Booth No.

WALKER LABORATORIES, INC. — Music Room—74
Mount Vernon, New York

PRECALCIN, the complete prenatal product supplying all essential vitamins and minerals will be exhibited. PRECALCIN is unique in that the capsules contain a dry powder fill with no fish liver oils, thereby providing excellent tolerance and patient appeal. Other outstanding preparations will also be featured and our representatives present will be glad to discuss all aspects of current therapy in their particular fields.

WALTERS SURGICAL COMPANY — Ballroom Foyer—5
Los Angeles

Walters Surgical Company will exhibit the latest medical and electro medical equipment, including Ritter all-purpose Motor Table, Fischer Fluoroscopic X-Ray Unit, Ultra Sonic Units, and Electro Physical Laboratories' new PC-3 Cardiotron and Metabasal.

WARNER-CHILCOTT LABORATORIES — Ballroom—34
New York, New York

Two important cardiovascular agents will be featured at the Warner-Chilcott booth: Methium—to lower blood pressure and relieve hypertensive symptoms, and Peritrate—to prevent attacks in angina pectoris. Representatives and research personnel will welcome an opportunity to discuss these drugs with you.

WESTERN SURGICAL SUPPLY COMPANY
Los Angeles — Ballroom—44 & 45

Western Surgical Supply Company will display diathermy and physiotherapy equipment, sterilizer, autoclaves, furniture, instruments, stainless steel ware, lights, laboratory supplies, and physicians' supplies of all kinds.

WESTINGHOUSE ELECTRIC CORPORATION
Baltimore, Maryland — Ballroom Foyer—7

Our representatives will be pleased to meet you and discuss your future or present requirements from the details in the Dark Room to the style and type of equipment for your specialty.

They are well prepared to custom-plan your x-ray facilities for present and future use.

Westinghouse appreciates this opportunity to present our x-ray products to you at this meeting.

Room and Booth No.

WESTWOOD PHARMACEUTICAL — Ballroom—53
Buffalo, New York

Westwood features its NEW, greatly improved LOWILA CAKE. It's smooth, slippery, gives oceans of suds and compares with soap in stability. We will give physicians a cake for personal use at the hotel, to prove that it gives the use-satisfaction of soap but is kind to sensitive skin.

WHITE LABORATORIES, INC. — Music Room—90
Kenilworth, New Jersey

WHITE'S "PHONOSCOPE" enables you to hear some of the heart sounds commonly encountered in clinical medicine and to see graphically displayed the associated electrocardiograms, carotid artery pulsations and apical stethograms. GITALIGIN (amorphous gitalin) which has been described as a "... digitalis preparation of choice" will be on display.

WINTHROP-STEARNS, INC. — Music Room—73
New York, New York

Winthrop-Stearns, Inc., New York, invite you to visit booth No. 73, where the following products will be featured—APOLAMINE, new synergistic compound for more efficient control of nausea and vomiting due to pregnancy, radiation sickness, and other causes; ALEVAIRE, nontoxic inhalant which thins sticky pulmonary secretions in bronchitis, bronchiectasis, and neo-natal asphyxia; TELEPAQUE, the new, highly effective and well tolerated oral cholecystopaque medium. Gives denser, clear-cut pictures of the gallbladder and, in a substantial number of cases, also permits visualization of the biliary ducts.

WYETH LABORATORIES — Music Room—95
Philadelphia, Pennsylvania

The display of Wyeth Laboratories will feature BICILLIN, the new penicillin compound, in various forms: BICILLIN All-Purpose, for prophylaxis and treatment in surgical infections; BICILLIN C-R, for use in general practice; BICILLIN Injection (various strengths), for prophylaxis of rheumatic fever; Oral Suspension BICILLIN, highly effective, stable, nontoxic and delightfully palatable. Also, PHENERGAN, a powerful, long-acting antihistamine effective in controlling all the allergic manifestations that are amenable to antihistaminic therapy; and THIOMERIN, the new mercurial diuretic adaptable to subcutaneous self-administration.

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DWIGHT L. WILBUR, San Francisco.....Editor
JOHN HUNTON, San Francisco.....Executive Secretary
PEART, BARATY & HASSARD.....Legal Counsel

Members of House of Delegates—51st Annual Session

TOTAL DELEGATES (301)

DELEGATES EX-OFFICIO (39)

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Arlo A. Morrison, Ventura.....President-Elect
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Wilbur Bailey, Los Angeles.....Vice-Speaker of House of Delegates
Albert C. Daniels, San Francisco.....Secretary-Treasurer
Dwight L. Wilbur, San Francisco.....Editor
Francis E. West (1955).....Councilor 1st District
Omer W. Wheeler (1956).....Councilor 2nd District
H. Clifford Loos (1954).....Councilor 3rd District
J. Philip Sampson (1955).....Councilor 4th District
Robert O. Pearman (1956).....Councilor 5th District
Neil J. Dau (1954).....Councilor 6th District
Hartzell H. Ray (1955).....Councilor 7th District
Sidney J. Shipman (1956).....Councilor 8th District
Donald D. Lum (1954).....Councilor 9th District
Warren L. Bostick (1955).....Councilor 10th District
Ralph C. Teall (1956).....Councilor 11th District
Arthur E. Varden (1954).....Councilor-at-Large
Ivan C. Heron (1954).....Councilor-at-Large
Benjamin Frees (1955).....Councilor-at-Large
Hollis L. Carey (1955).....Councilor-at-Large
Arthur A. Kirchner (1956).....Councilor-at-Large
T. Eric Reynolds (1956).....Councilor-at-Large

ELECTED DELEGATES (262)

Delegates	*Alternates*
Alameda-Contra Costa County (22)	
Allen, Dorothy M.	Allington, Herman V.
Barr, James A.	Attwood, C. J.
Baxter, Philip N.	Bartlett, J. C.
Bolender, Melvin	Benson, K. W.
Clausen, Edwin	Buehler, Merle
Dozier, Thomas J.	Crockett, H. C.
Dugan, David	Crum, R. Abbott
Fraser, L. H.	Daily, Kaho
Gadwood, Bernard B.	Due, Floyd
Graeser, James B.	Fornoff, Homer
Henderson, Ernest W.	Furbush, Claude
Hudson, Charles	Hadden, Malcolm
Kaiser, William	Haight, Frank
Kern, Max	Hart, Charles
Lawrence, Lester	Kerns, Claude L.
Leet, Robert S.	Maloney, H. P.
Logan, Noble	Richards, Dexter, Jr.
Reavis, James	Royce, Byron
Reynolds, T. E.	Sadusk, Joseph
Shumaker, Paul	Schriber, Paul
Thebaut, Maxwell	Snook, Helen Jean
Truman, Stanley R.	Stephens, Stuart
Butte-Glenn County (2)	
Elmendorf, Thomas	Casey, Donald
O'Neill, Frank I.	McCulloch, Charles S.

Delegates	*Alternates*
Fresno County (5)	
Argo, W. L.	Arthur, J. M.
Ghormley, Verne	Berg, Bruce
Halley, E. C.	Howard, Arthur
Randel, Henry A.	Murray, John F.
Young, J. E.	Olson, George
Humboldt County (2)	
Olson, Fred A.	Crane, Clarence
O'Neil, Francis H.	Eley, James S.
Imperial County (2)	
Bostwick, Jack R.	Schoensee, Burke
Holleran, George C.	Thompson, Edgar A.
Inyo-Mono County (2)	
Curtis, C. C.	Denton, Robert W.
Scott, C. L.	Mason, J. Lloyd
Kern County (3)	
Ogden, Roderick A.	Douds, Robert
Patrick, Robert A.	Forney, Robert
Vaughan, J. E.	Scherb, Robert E.
Kings County (2)	
Brother, Paul	Christensen, Lloyd
Chamlee, William F.	
Lassen-Plumas-Modoc County (2)	
Davis, Fred, Sr.	Greenman, R. A.
Priest, Allen	McKenney, J. Paul

Delegates	*Alternates*
Los Angeles County (99)	
Alsberge, Marden A.	Abbey, John D.
Anderson, Floyd K.	Adams, Lawrence
Andrews, Herbert J.	Anderson, Phillip A.
Bailey, Arthur T.	Annis, Arthur J.
Ball, Elmer J.	Ashley, Kennerley C.
Bay, Max W.	Baker, Francis J.
Beckenbach, Madelene	Beckner, George L.
Bennett, Ralph L.	Beckner, Gordon B.
Boehme, Earl J.	Beers, Reid L.
Buerger, Walter R.	Beltz, Daniel
Bullock, Lewis T.	Bittner, Linus H.
Burns, Behle B.	Blackmun, Robert L.
Burwell, L. C.	Bloch, Jesse L.
Calmenson, Marvin	Blong, Peter H.
Carter, Robert V.	Boyd, Harold
Caruso, Tenero D.	Bradford, Fred E.
Champion, John G.	Brayton, Donald
Chappel, Merwin Reid	Brown, George E.
Clough, William C.	Buell, Arthur H.
Coffelt, R. Wendell	Byrne, Ralph V.
Commons, Robert R.	Cardey, Norman L.
Conti, James G.	Cornell, Chester E.
Cook, Wells C.	Crowe, Harold E.
Cosgrove, Clair P.	Dahlman, Rynol A.
Cosgrove, Jay B.	Dassett, J. W.
Costolow, William E.	Davis, Charles L.
Craig, Lyle G.	Donath, Douglas
Crane, Edward H., Jr.	Eaves, George Bennett
Cunnane, Philip J.	Ellmore, Lewis F.
Denman, Dean C.	Farris, Jack M.
Desimone, Leon O.	Feinfield, Arthur
Doyle, James C.	Foster, Percy A.
Einstein, Robert A. J.	Gannon, William A.
Ewens, Frederic	Gaspard, Frederic J.
Fisher, Robbin E.	Gilbert, Wallace G.
Foster, Paul D.	Gilfillan, Charles
Gairdner, Thomas M.	Glazier, McCleery
Gooel, Elmer F.	Golenternek, Dan
Graham, William E.	Gottschalk, G. Howard
Haining, Robert B.	Groth, George W., Jr.
Helms, Robert W.	Haines, Charles L.
Hoffman, Arthur M.	Hallstone, Victor E.
Hoffman, Eugene F.	Hamilton, John B.
Hohl, Elizabeth Mason	Hansen, Phil
Holland, Frank F.	Harvey, Bernard J.
House, Howard P.	Harvey, Oscar
Huff, Louis L.	Haworth, Walter L.
James, John B.	Henry, Richard J.
Kahn, Julius	Hiemstra, Wybren
Kidd, Thomas R.	Hoover, Harold R.
Lambertson, E. R.	Huffman, L. Dale
Langan, Arthur John	Hughes, Clifford M.
LeValley, Thomas A.	Johnson, Fordyce
Ludwig, J. Lafe	Jones, Glen Ellis
Martin, Louis E.	Kaftan, Ludwig L.
Martin, Walter P.	Kahlstrom, Sylvia
Mauer, Edgar F.	Kendig, Thomas A.
Mendelsohn, Howard A.	Kirby, Frederick G.
Moes, Robert J.	Knox, Stuart C.
Moore, Oliver	Lange, Henry J.
Morgan, Henry G.	Le Moncheck, Edward
Morrow, James J.	Lloyd, O. Dale
Nugent, Maurice W.	Lopizich, Ivo J.
O'Connor, Joseph P.	Luck, J. Vernon
O'Neill, J. Norman	Macdonald, William Alan
Otto, Frank W.	Mann, Albert W.
Padgett, W. DeGrove	McDonald, John B.
Paletz, Bernard E.	McNiel, Edwin E.
Parks, Floyd R.	Molony, Clement J.
Petit, Donald W.	Mueller, E. J., Jr.
Pheasant, Homer C.	Mumler, William C.
Pindell, Merl Lee	Nicoll, Gordon A.
Pottenger, F. M., Jr.	Olson, Paul Frederick
Prichard, Hubert J.	Packer, George L.
Quinn, William F.	Parker, Donald D.
Randall, Morton H.	Poulson, Charles T.
Regan, James F.	Rabwin, Marcus H.
Remmen, E. T.	Rago, Marco Robert
Reyes, J. M. de los	Raszkowski, Harvey J.
Richards, Walter D.	Reed, Joseph C.
Rolf, Bruce B.	Roberts, Chester L.
Rosenbaum, Maurice M.	Rolland, Ward M.
Rosenow, Edward C., Jr.	Schade, Frank F.
Ruddock, John C.	Schroeder, Herbert H.
Schroeder, Ralph L.	Scott, Walter
Shelton, Robert M.	Seibly, Robert C.
Short, J. Edward	Shery, Kurt T.
Sloan, Ralph Varian	Smith, Earl H.
Smith, Gordon K.	Smith, Eldon E.
Spickerman, Harold D.	Sommer, Melvin
Stein, Justin J.	Stokesbary, Delbert L.
Stern, Robert Leo	Thornburgh, Robert
Tennison, William J.	Thurber, Packard, Jr.
Todd, Malcolm	Turbow, Arthur O.
Turner, Ewing L.	Tyler, Edward T.
Tyroler, Frederic N.	Walker, Leon R.
Wadsworth, E. E., Jr.	Walker, Ralph H.
Wilson, Warren A.	Waller, Lorenz M.
Witherbee, Harold R.	Wilson, J. Walter

Delegates	*Alternates*
Madera County (2)	
Daggett, Gilbert G.	Butler, K. W.
Swift, Coe T.	Solberg, L. A.
Marin County (2)	
Culmer, J. William	Smart, William R.
Russell, Carroll A.	
Mendocino-Lake County (2)	
Hill, Thomas P.	Craig, Charles
Massengill, James B.	Smalley, Robert B.
Merced County (2)	
Hicks, Shelby	Haas, Hugh S.
Pimentel, George	Jackson, E. A.
Monterey County (3)	
Clark, Howard E.	Handley, Richard
Englehorn, T. D.	Miles, Howard C.
McPharlin, James H.	Mitchell, Allen Conrad
Napa County (2)	
Brignoli, Walter H.	Barber, Dale E.
Heegler, Fred	Marchus, Donald B.
Orange County (5)	
Galbraith, Harold F.	Donaldson, A. Norton
Gendel, Samuel	Maxwell, Milton M.
Price, J. B.	Struve, Edgar E.
White, Ralph E.	Weaver, Samuel
Wilson, L. E.	Wilcox, John G.
Placer-Nevada-Sierra County (2)	
March, Harry	Dunievitz, Max
Miller, William M.	Ruby, Saul
Riverside County (3)	
Aikin, William	Humphrey, Norton R.
Batzle, J. Harold	Long, James C.
Martin, Hugh H.	Quick, E. D.
Sacramento County (6)	
Chambers, Jack V.	Burden, Herbert S.
Dozier, Dave F.	MacDonald, Frank A.
Grayson, Charles E.	Pope, Glenn A.
Jones, Warren E.	Sarkisian, Milton V.
Kilroy, Dan O.	Simpson, E. E.
Yant, James H.	Wallerius, Raymond M.
San Benito County (2)	
Brown, R. E.	Taylor, Kent S.
Moore, E. N.	Young, David G., Jr.
San Bernardino County (5)	
Abbott, C. Norman	Hayhurst, Joseph S.
Coughlin, John H.	Marsh, Norman E.
Hadley, Carl M.	Melone, Frank C.
Martin, J. Needham	Pelkey, George L.
Vargas, Roger A.	Small, Carrol S.
San Diego County (11)	
Batten, Douglass H.	Carpenter, Walter F.
Hollander, Frederick G.	Dunklee, Patricia E.
Isenhour, Roger C.	Hall, Winston C.
Marlow, Arthur A.	Hokr, William K.
Martin, Worth L.	Hyde, Charles R.
Moore, A. E.	King, Ralph M.
Newman, Willard H.	Loveall, Robert
Pyle, Ross C.	Phalen, James R.
Robinson, Frank H.	Ravenscroft, James W.
Rumsey, John M.	Soldmann, W. T.
Telford, Joseph W.	Tancredi, Chester
San Francisco (30)	
Bender, William L.	Bonfilio, Nicholas D.
Birnbaum, Walter D.	Callaway, Claude P.
Burnham, DeWitt K.	Combs, Robert C.
Campbell, Donald M.	Franzi, Antonio J.
Campion, George	Gill, Gerald
Cheney, Garnett	Grimes, Orville F.
Cox, Francis J.	Herzog, George K., Jr.
Fenlon, Roberta	Hodges, Francis T.
Flood, Randolph G.	Howard, Frederick S.
Gardner, Kenneth D.	Joseph, Peter S.
Garland, L. Henry	Katz, Hilliard J.
Gibbons, Henry, III	Kuzell, William C.
Harrington, David O.	Lastreto, E. Donald
Hinman, Allen T.	Mathes, Mary E.
Hosmer, Matthew N.	McGuinness, Joseph S.
Kilgore, Alson R.	Meherin, J. Minton
Mathewson, Carleton, Jr.	Noble, Charles A., Jr.
Moffitt, Herbert C., Jr.	Plate, Agnes G.
Morrissey, Edmund J.	Richards, Victor
Olney, Mary B.	Rustad, William H.
Rixford, Emmet L.	Shaffer, Robert N.
Rochex, Francis	Smith, Curtis E.
Schaupp, Karl L., Jr.	Smyth, Francis Scott
Sherman, Samuel R.	Sumner, William A.
Silvani, Henry L.	Sweigert, Charles F.
Sirbu, A. B.	Torassa, George L.
Spitalny, August	Trauner, Lawrence M.
Talbott, Grace M.	Washburn, William W.
Ward, Robertson	Woo, Henry B.
Weyrauch, Helen B.	Zumwalt, Reuben

Delegates	*Alternates*
San Joaquin County (3)	
Armanino, Louis P.	Benn, James
Eccleston, Jack	Noetling, Paul
Johnson, Neill P.	Powell, James R.
San Luis Obispo County (2)	
Scow, Jim	Blair, Edward
Wolfe, Alfred M.	Middleton, Joseph G.
San Mateo County (6)	
Allen, James R.	Armstrong, Charles D.
Edwards, James S.	Brownson, Bradley C.
Farthing, Thomas E.	Geller, Philip S.
Fox, Norman C.	Lyne, Walter C.
Howe, Ralph D.	Shidler, Frederic P.
Miller, A. G.	Smith, Harry F.
Santa Barbara County (3)	
Reeves, David L.	Freidell, Hugh F.
Wentz, Arthur E.	Hill, Thurman K.
Wilcox, Alfred B.	Thacher, L. K.
Santa Clara County (8)	
Davis, Burt	Carlson, Carl O.
Dennis, Robert	Cox, John
Foster, Thomas N.	Currlin, Albert R.
Fox, Leon P.	Loehr, Robert A.
Josephson, J. B.	Long, Gabe
Molineux, William L.	Ness, Ansten R.
Morton, Paul V.	Sears, W. Norman
Wilson, John C.	Snyder, J. Frederic
Santa Cruz County (2)	
Newhall, Luther	Barr, H. S.
Randall, Samuel B.	Karleen, P. E.
Shasta County (2)	
Jantzen, Roland R.	Eagle, Henry R.
Martin, George A.	Kehoe, Julius
Siskiyou County (2)	
Newton, Albert H.	Anderson, Eugene V.
Vidricksen, H. L.	McGuire, James B.
Solano County (2)	
Johnson, Lionel	Rossi, Felix J., Jr.
Jones, F. Burton	Smith, Milton B.

Delegates	*Alternates*
Sonoma County (2)	
Hines, Leonard W.	Oakleaf, Donovan C.
Thomas, Owen F.	Sharrocks, Horace F.
Stanislaus County (2)	
Hiatt, R. Stewart	Feher, George S.
Smith, Edmund L.	Miller, W. D.
Tehama County (2)	
Frey, R. G.	Jourdan, Harve W.
Wood, O. T.	Meuser, A. H.
Tulare County (2)	
Dungan, Vincent M.	Jackson, Gordon L.
Feldmayer, James E.	Johnson, C. H.
Ventura County (2)	
Helbling, Franklin K.	Reynolds, Richard
Moore, J. W.	Ridge, Gerald K.
Yolo County (2)	
Copeland, Edwin	Cooper, Thomas
Kimbell, James H.	Pye, Robert
Yuba-Sutter-Calusa County (2)	
Parkinson, Stanley R.	Belz, John F.
Wisner, Francis P.	Salopek, Joseph J.

Past Presidents (16)

Ewer, Edward N. 1925
Kinney, Lyell C. 1930
Harris, Junius B. 1931
Reinle, George G. 1933
Peers, Robert A. 1935
Wilson, Harry H. 1940
Molony, William R., Sr. 1942
Schaupp, Karl L. 1943
Goin, Lowell S. 1944
McClendon, Sam J. 1946
Cline, John W. 1947
Askey, E. Vincent 1948
Kneeshaw, R. Stanley 1949
Cass, Donald 1950
MacLean, H. Gordon 1951
Alesen, L. A. 1952

House of Delegates Agenda

1954 Annual Session

Renaissance Room, Biltmore Hotel

Speaker . . . . . Donald A. Charnock, Los Angeles
Vice-Speaker . . . . . Wilbur Bailey, Los Angeles
Secretary . . . . . Albert C. Daniels, San Francisco

FIRST MEETING

Sunday, May 9, 1954, at 9:30 a.m.

ORDER OF BUSINESS

1. Call to order.
2. Report of Committee on Credentials, and Organization of the House of Delegates.
3. Roll call.
4. Announcement and approval of Reference Committees.
   (a) Committee on Credentials. (Delegates must register with the Committee.)
   (b) Reference Committee on the Reports of Officers, the Council and Standing and Special Committees. (Reference Committee No. 1.)
   (c) Reference Committee on Finance, to review the reports of the Secretary-Treasurer and the Executive Secretary and to study and make recommendations to the House of Delegates on the budget submitted by the Council and the amount of dues for the ensuing year (Reference Committee No. 2.)
   (d) Reference Committee on Resolutions and New and Miscellaneous Business. (Reference Committee No. 3.)
   (e) Reference Committee on Amendments to the Constitution and By-Laws. (Reference Committee No. 4.)
   (f) Reference Committee on C.P.S. business.
5. Address by President John W. Green.
   Presentation of 50-Year-Awards.
6. Miscellaneous announcements by the Speaker. (Stenographic service, to secure copies of resolutions, etc.)
7. Report of the President—John W. Green.
8. Report of the President-elect—Arlo A. Morrison.
9. Report of the Speaker of the House of Delegates—Donald A. Charnock.
10. Report of the Vice-Speaker—Wilbur Bailey.
11. Report of the Chairman of the Council—Sidney J. Shipman.
12. Report of the Council—Sidney J. Shipman.
13. Report of the Trustees of the California Medical Association—John W. Green, President.
14. Report of the Secretary—Albert C. Daniels.
15. Report of the Treasurer—Albert C. Daniels.
16. Report of the Executive Secretary—John Hunton.
17. Report of the Editor—Dwight L. Wilbur.
18. Reports of District Councilors.
19. Reports of Councilors-at-Large.
20. Report of Legal Counsel—Peart, Baraty & Hassard.
21. Report of C.P.S. Board of Trustees.
22. Reports of Standing and Special Committees:
   A. Standing Committees:
      (a) Executive Committee—Donald D. Lum.
      (b) Committee on Associated Societies and Technical Groups—H. Gordon MacLean.
      (c) Auditing Committee—Donald D. Lum.
      (d) Committee on History and Obituaries—J. Marion Read.
      (e) Committee on Hospitals, Dispensaries, and Clinics—Jay J. Crane.
      (f) Committee on Industrial Practice — Packard Thurber, Sr.
      (g) Committee on Medical Economics—Leopold H. Fraser.
      (h) Committee on Medical Education and Medical Institutions—Walter E. Macpherson.
      (i) Committee on Military Affairs and Civil Defense —Justin J. Stein.
      (j) Physicians' Benevolence Committee — Axcel E. Anderson.
      (k) Committee on Postgraduate Activities—Edward C. Rosenow, Jr.
      (l) Committee on Public Policy and Legislation—Dwight H. Murray.
      (m) Committee on Public Relations—Ed Clancy.
      (n) Committee on Scientific Work (Annual Session) —Albert C. Daniels.
      (o) Editorial Board—Dwight L. Wilbur.
      (p) Cancer Commission—Ian Macdonald.
   B. Special Committees:
      (a) Delegates to the American Medical Association —H. Gordon MacLean.
      (b) Advisory Planning Committee—John Hunton.
      (c) Blood Bank Commission—John Upton.
      (d) Medical Services Commission—Leslie B. Magoon.
      (e) Committee on Industrial Health — Christopher Leggo.
      (f) Committee on Rural Medical Service—Henry A. Randel.
23. Report of Reference Committee No. 3—1953 Interim Session.
24. Old and Unfinished Business.
25. New Business.

SECOND MEETING

Wednesday, May 12, at 9:30 a.m.

ORDER OF BUSINESS

1. Call to order.
2. Supplemental report of Credentials Committee.
3. Roll call.
4. Secretary's announcement of Council's selection of place for the 1955 annual session.
5. Election of Officers:
   (a) President-elect.
   (b) Speaker.
   (c) Vice-Speaker.
   (d) District Councilors (three-year term):
      1. Third District—H. Clifford Loos, Los Angeles (term expiring).
         Third District—Los Angeles County.
      2. Sixth District—Neil J. Dau, Fresno (term expiring).
         Sixth District—Calaveras, Fresno, Kern, Kings, Madera, Mariposa, Merced, San Joaquin, Stanislaus, Tulare and Tuolumne counties.
      3. Ninth District—Donald D. Lum, Alameda (term expiring).
         Ninth District—Alameda and Contra Costa counties.
   (e) Councilors-at-Large (three-year terms):
      Arthur E. Varden, San Bernardino (term expiring).
      Ivan C. Heron, San Francisco (term expiring).
   (f) Delegates to American Medical Association:
      Delegates and Alternates to the American Medical Association are elected for terms of two calendar years. The Delegates and Alternates to be elected at this meeting will serve for two calendar years starting January 1, 1955.
      Incumbents:
      1. H. Gordon MacLean, Oakland (term expiring).
      2. E. Vincent Askey, Los Angeles (term expiring).
      3. Dwight L. Wilbur, San Francisco (term expiring).
      4. Donald Cass, Los Angeles (term expiring).
      5. J. Lafe Ludwig, Los Angeles (term expiring).
      6. R. Stanley Kneeshaw, San Jose (term expiring).
   (g) Alternates to American Medical Association:
      Incumbents:
      1. Leopold H. Fraser, Richmond (alternate to H. Gordon MacLean).
      2. H. Clifford Loos, Los Angeles (alternate to E. Vincent Askey).
      3. J. Frank Doughty, Tracy (alternate to Dwight L. Wilbur).
      4. J. Norman O'Neill, Los Angeles (alternate to Donald Cass).
      5. H. Milton Van Dyke, Long Beach (alternate to J. Lafe Ludwig).
      6. Burt Davis, Palo Alto (alternate to R. Stanley Kneeshaw).
6. Election of C.P.S. Trustees:
   Report of C.M.A. Council as Nominating Committee.
   Incumbents:
   (a) C. Glenn Curtis, Brea.
   (b) Philip N. Baxter, Oakland.
   (c) Thomas N. Foster, San Jose.
   (d) J. Norman O'Neill, Los Angeles.
7. Announcement by Secretary.
   Council's nominations of members of Standing Committees (for approval by the House of Delegates).
8. Reports of Reference Committees:
   (a) Report of Reference Committee No. 1 on Reports of Officers, the Council, and Standing and Special Committees.
   (b) Report of Reference Committee No. 2 on Reports of the Secretary-Treasurer and the Executive Secretary, on budget and dues.
   (c) Report of Reference Committee No. 3 on Resolutions and New and Miscellaneous Business.
   (d) Report of Reference Committee No. 4 on Amendments to the Constitution and By-Laws.
   (e) Report of Reference Committee on C.P.S. business.
9. Unfinished Business.
10. New Business.
11. Presentation of Officers:
    President
    President-Elect
    Speaker
    Vice-Speaker
12. Presentation of Certificate to Retiring President—John W. Green.
13. Approval of Minutes. (Committee to edit.)
14. Adjournment.

DONALD A. CHARNOCK, *Speaker*
ALBERT C. DANIELS, *Secretary*

PRE-CONVENTION REPORTS

Officers • Councilors • Committees • County Societies

REPORTS OF GENERAL OFFICERS

REPORT OF THE PRESIDENT

To the House of Delegates:

Your President has attended all the meetings of the Council and the Executive Committee and has visited the County Societies of Santa Barbara, Ventura, Santa Ana, and Imperial and Kings, and has discussed their many problems with them. A meeting of Pacific Coast Medical Care Plans was also attended for two days in San Francisco. C.P.S. becomes of age. We believe in it.

It was a pleasure to attend a meeting of the Solano County Medical Society at which Mrs. Carl Burkland, President of the Auxiliary, made her annual report to the group. Her remarks were timely and are highly commendable and are evidence of a thorough understanding of the Auxiliary Program and Problems. Mrs. Burkland stressed the need for funds for the Medical Education Foundation.

We feel that we should especially mention the postgraduate activities of our Association under the chairmanship of Dr. Edward Rosenow, with the very excellent help of Dr. C. A. Broaddus. There is enthusiastic interest in the meetings they are holding and are scheduling for the future. The country doctors are being well served in their respective areas.

Our Legislative Committee under the chairmanship of Dr. Dwight H. Murray, with the assistance of Mr. Ben Read and Mr. Ed Clancy, has rendered us the very best of service, as they have in the past; no legislation inimical to medicine has succeeded in passing at Sacramento.

The Medical Services Commission, chairmanned by Dr. Magoon with Dr. Teall as vice-chairman, is making a study of all medical care plans and is working with the Committee on Unethical Practice, Dr. Shipman, chairman, and will soon contribute some important recommendations with regard to "closed panel" as well as other types of practice. We await these reports with great interest.

The journal of the California Medical Association maintains its standard of excellence, and Dr. Dwight Wilbur, its editor, and the editorial staff are appreciated by this Association. We commend the advertising it contains.

The central office at 450 Sutter St., San Francisco, continues its efficiency under the direction of Mr. John Hunton, Executive Secretary, assisted by Robert Thomas and the other personnel, as well as those associated with the staff of the southern office in Los Angeles. The Public Relations Department, which reports through Mr. Hunton, has done yeoman service throughout the year, with Mr. Ed Clancy, Director, assisted by Jerry Pettis in the south and by Glenn Gillette in the north. They have done an excellent job for medicine, day by day and week by week, and we take this opportunity to thank them for their services to the Association as a whole as well as a personal thanks for their kind offices to the President on his official visits to the County Societies. The Public Relations program has been excellent and we wish especially to mention the TV programs which bring medicine closer to the public.

The Cancer Commission with Dr. Ian Macdonald as chairman continues to function well.

Our chairman of the Nursing Committee, Dr. Howard Naffziger, continues to study that problem and has some ideas which I am sure the Council may find interesting and valuable to the end of a more satisfactory recruitment and education of Nurses.

Our financial condition is satisfactory and our position strong. There are other groups just as necessary to our well-being as the above mentioned activities but whose operations are not as spectacular, and we are thankful for their help. All of our activities are reflected in our growth in membership, which is now over 12,000, and by reason of which we are entitled to one more delegate to the A.M.A. Dr. Paul Foster has been chosen for this responsibility, with Dr. Arthur Kirchner as alternate. We commend both of them for their devotion to the welfare of medicine. The recent insurance program, so successfully carried out by Dr. Kirchner, and by means of which additional coverage helps to assure our members of financial security while ill or injured, is really a great accomplishment. I am sure no one of us has too much coverage. I feel that the premium of the Lumbermens Mutual policy is not too high, and recommend that members who have not been interested in this program become applicants for coverage at an early date.

Our Committee on Scientific Work with Dr. Albert C. Daniels as chairman is doing its job in the same satisfactory manner as in previous years.

The Committee on Military Affairs with Dr. Justin Stein as chairman reflects great credit on our Association.

The Committee on Medical Economics is really making a study of the costs of Medical Service, under the direction of Dr. L. H. Fraser, chairman.

Committees of which I have made no special mention are functioning when necessary and will make their own reports, the details of which I am not familiar with.

Thanks are due to all members of the Association who have written or conferred with me in regard to matters of importance to the well-being of our profession and I especially wish to thank all the members and the officers of the Council for their untiring efforts in behalf of the Public Health and the success of every doctor in this state. The Speaker of the House of Delegates, Dr. Don Charnock, and his able Vice-Speaker, Dr. Wilbur Bailey, have kept our deliberations on an even keel and have increased our efficiency in the House as well as speeded up our agenda.

To my way of thinking the advent of "panel practice" on a grand scale in our State is giving us cause to review our manner of rendering medical care to the public and we will be making some changes to meet the challenge of competition. No doubt the recommendations of our Committee on Medical Service will help to direct our efforts in the proper manner of handling this perplexing question. Our Public Relations Counsel will be of great assistance. Our tape recordings and the formation of the Audio-Digest Foundation will also be of great assistance in quickly and economically spreading information to our County Societies. The loan of Rollen Waterson by the Alameda-Contra Costa Society, in connection with this whole program, has been

very helpful. We hope for approval of the formation of the Audio-Digest Foundation by the members of our Association. It will be directed by Mr. Jerry Pettis and the profits, if any (and we feel there is great chance for profit), will be given over to the Medical Education Foundation or, in any event, to assist in more effective Medical Education.

At this time, I wish to make another appeal to our members to give sufficient of their funds to keep the medical schools free of government domination and control. Government control is a real threat. We call your attention to utterances of the present Eisenhower administration in regard to education as a whole. President Eisenhower wishes to assist in this whole problem, but the technique of the operation has not yet been perfected.

It is well to remember the Bricker amendment legislation and to ask support for it by your congressman and senator. Do we wish extension of Social Security to the medical profession? In the past I am sure that we did not favor it. I believe that it would be well to address a questionnaire to each member this year, to find out if the majority of physicians in active practice who are our members still feel as we did prior to 1954. It would not be advisable to have other than a secret ballot in obtaining this information. Let us find out whether our philosophy is changing.

The state medical societies of Oregon, Washington and Idaho are now preparing resolutions which relate to certain phases of health, education and welfare activities as administered by Mrs. Hobby, but suggested to the Congress by the present administration. What our Association will do in regard to this matter is now undetermined, because it has not yet been discussed.

This report is quite lengthy but I cannot close without thanking the wives of our members, who have given so much to our Association in 1953, for their part in inspiring their doctor husbands in doing a creditable job. Our successful year should be, at least, some satisfaction to the wives and a partial compensation for their lonesome hours. I salute the Woman's Auxiliary and support their program.

A supplementary report will doubtless be made necessary by the course of events, and there are certain court decisions in the making, which are likely to influence our profession, and perhaps modify our policies.

Respectfully submitted,

JOHN W. GREEN, *President*

REPORT OF THE PRESIDENT-ELECT

To the President and the House of Delegates:

It has been my privilege to meet with the officers and members of 28 county societies and one branch society during the past year. I was pleased to note the presence of the Auxiliary at a number of meetings.

Aimed at getting better acquainted with local society members and their problems, a new panel-type discussion of questions and answers met with considerable enthusiasm from these societies. And it was not a one-way road: not only were we able to inform the membership of the more pressing and practical problems of the C.M.A., but we got a first-hand and valuable education concerning the local societies' viewpoints.

We are convinced that this type of meeting has generated greater coordination within and among the C.M.A., the individual doctor and his society. In fact, it has already aided in solving several points of difference to the extent that the public interest has been better served. We heartily recommend the continuance of this type of meeting.

Of particular interest, we have noted that more and more physicians are taking an active interest in community affairs. They feel that if we are to attain professional leadership in the various groups who interest themselves in community health matters, we must meet our civic responsibilities.

Evidence that doctors are making a sincere effort to keep medical economics in step with medical science, I note, is an increased awareness of public relations ideas, fee discussions in advance with the patient, proper functioning of public service committees, and the importance of the patient's right to choose his own doctor and hospital. These doctors are deserving of our appreciation and encouragement.

I have attended all meetings of the Council and of the Executive Committee and have carried out all duties assigned to me.

I would like to extend my sincere thanks to the Councilors who, by their advice and ready cooperation, helped make the county society visits successful. The attention of society members at these meetings, and the interest of county society officers who have shown marked ability in their offices, we appreciate also.

Finally, I wish to thank John Hunton, Ed Clancy, Glenn Gillette, Jerry Pettis and Ben Read for their continuing and able assistance.

Respectfully submitted,

A. A. MORRISON, *President-Elect*

REPORT OF THE SPEAKER OF THE HOUSE OF DELEGATES

To the President and the House of Delegates:

The mechanics of the House of Delegates has functioned very well during both the annual and interim sessions. If the Chair has seemed to speed up routine business this is in order that adequate time may be allowed for full debate on the many important questions which the House is called upon to decide.

Considerable thought has been given to the advisability of having resolutions screened by a committee prior to introduction. While this was discussed with the idea of easing the work of press relations, it is the considered opinion of the Speaker and the Vice-Speaker that nothing should interfere with a free expression of the delegates.

It would facilitate the handling of new business if the Chair was appraised, before the meeting was in motion, of the introduction of resolutions. With the new quintuplet forms for resolutions now available, a copy could be sent to the Chair. This would expedite the "timing" of the meeting. Such a procedure should in no way curtail the introduction of spontaneous resolutions which might arise from the business at hand.

The Speaker and the Vice-Speaker stand ready at all times to assist the delegates with advice on the technical aspects of resolutions.

Respectfully submitted,

DONALD A. CHARNOCK, *Speaker*

REPORT OF THE VICE-SPEAKER

To the President and the House of Delegates:

The Speaker and the Vice-Speaker are continuing to streamline procedures for registration and resolutions.

Respectfully submitted,

WILBUR BAILEY, *Vice-Speaker*

Report of the Council

To the President and the House of Delegates:

The Council rendered a report to the Interim Session of the House of Delegates on December 12, 1953. This report was published as a part of the transcript of the Interim Session in the February issue of CALIFORNIA MEDICINE.

At this writing, less than 60 days later, there is little of moment for an additional report. The Council has held one additional meeting, on January 30, 1954, and will schedule two more meetings before the Annual Session.

Rather than report on specific actions, it may be interesting to the members to get a little clearer picture of how the Council operates. The Council serves between meetings of the House of Delegates and is charged with carrying out the orders of that body and of reaching tentative decisions on other matters of policy while the House is between sessions. At times this responsibility weighs somewhat heavily.

Ordinary procedure calls for the Council to meet at intervals of from 60 to 90 days. Most meetings are now for one day, although in the past many two-day sessions were held. During sessions of the House of Delegates the Council plans to meet each day.

The Council agenda always considers first those organizational matters which require study, approval or statement of policy. Membership changes, financial reports, requests from the county societies and the approval of minutes are handled as early routine matters at each meeting. Then come committee reports, whether they be progress reports, requests for policy support or requests for financial aid to carry on committee work.

The State Department of Public Health reports regularly to the Council on matters pertaining to the public health, and other departments of the State of California are welcomed when they wish to appear before the Council on some particular subject.

Legislative activities are regularly reported, as are legal matters. The standing committees of the Association ordinarily do not report to the Council but the door is always open to them. In the case of special committees appointed by the Council, committee chairmen are always welcomed. This has been particularly true of such committees as the Committee on Industrial Accident Commission and the Committee on Public Health and Public Agencies.

California Physicians' Service is represented at all meetings and the Council is represented at C.P.S. Trustees' meetings by three Councilors selected to sit with that board. Thus a steady liaison is maintained.

Between meetings, members of the Council are kept advised on important events, by mail and telephone. Where a decision is needed on some matter and time does not allow calling a Council meeting, the Executive Committee is contacted for a meeting in person or via telephone. This committee is composed of the President, President-Elect, Speaker, Auditing Committee chairman and Council chairman, with the Editor and Secretary serving ex-officio. Such a small group allows prompt action, with all its decisions subject to approval of the Council.

This report is designed to delineate the Council's actions and methods of meeting. It is hoped that all members of the Association will feel free to place before the Council chairman, the Secretary or the central office any matters of a policy nature which would benefit from Council deliberation and decision.

Respectfully submitted,

SIDNEY J. SHIPMAN, *Chairman*

REPORT OF THE PRESIDENT OF THE TRUSTEES OF THE C. M. A.

To the House of Delegates:

The Trustees of the California Medical Association is a non-profit corporation designed to hold reserve funds and other assets accumulated by the California Medical Association. In this capacity the corporation is not engaged in daily activities other than conserving such assets as are turned over to it by the C.M.A.

One meeting of the corporation has been held in the past year, the organization meeting at which officers were elected and the acts of the previous year reviewed. The balance sheet and income and expense statements of the Trustees of the C.M.A. appear on another page of this issue.

Respectfully submitted,

JOHN W. GREEN, *President*

REPORT OF THE SECRETARY

To the President and the House of Delegates:

The Secretary was reelected by the Council at the meeting in May 1953. He has attended the meetings of the Council and the Executive Committee and he has edited the minutes that were prepared by the Executive Secretary with the aid of the Legal Counsel. The Secretary as usual presided over the meetings of the Committee on Scientific Work, and he arranged for the scientific speakers at the Interim Session in San Francisco in 1953.

The Secretary also has been active in attending the meetings of the Committee on Postgraduate Activities, and in laying the foundations for a meeting next fall of interested groups on the subject of physicians and schools sponsored by the California Medical Association.

The Secretary has been active on the Cancer Commission.

The attention of the membership is called to the minutes of the Council and the Executive Committee printed in CALIFORNIA MEDICINE. It is strongly recommended that this be read by all members.

Respectfully submitted,

ALBERT C. DANIELS, *Secretary*

REPORT OF THE EDITOR

To the President and the House of Delegates:

The better to reduce the elapse of time between the acceptance and publication of articles, CALIFORNIA MEDICINE last year considerably lowered its inventory of manuscripts by publishing more than in any previous year and at the same time accepting fewer than it had accepted the year before. The total number of articles printed in 1953 was 173 as against 138 in the preceding year, and the number accepted was 144 against 185.

In common with other medical journals, CALIFORNIA MEDICINE has experienced a decrease in the number of manuscripts submitted. Comparative data for the last three years on the sources of material and on the number of manuscripts accepted follow:

	Annual Session		Other		Total	
	Rec'd	Accepted	Rec'd	Accepted	Rec'd	Accepted
1953.....	120	86	91	58	211	144
1952.....	143	101	126	84	269	185
1951.....	138	89	79	42	217	131

The Editor welcomes this annual opportunity to express his warm thanks to the many persons who contribute to the making of CALIFORNIA MEDICINE. To the members of the Editorial Board, to those who have reviewed books, to those who have prepared material on assignment, to those who have been called upon for special advice from time to time, and especially to Robert Edwards for his continued outstanding work as assistant to the Editor and to Mrs. Barbara Rooney for her excellent secretarial services—to all who have, in great or fine, contributed to the quality of this journal—to them the Editor's gratitude.

Respectfully submitted,

DWIGHT L. WILBUR, *Editor*

REPORT OF THE EXECUTIVE SECRETARY

To the President and the House of Delegates:

Your executive secretary herewith submits his report for the past year, divided into the various activities placed under his jurisdiction by the Council.

1. *Administrative:* During the past year the headquarters office in San Francisco has been enlarged and rearranged. Additional space was secured and a new floor plan developed to bring all activities together in one place. Previously, two separate offices on the same floor had been required.

As now set up, the office contains five male and nine female employees. In addition, quarters are provided for Selective Service in its work on the doctor draft law. Telephone service is now provided through a switchboard, which had not previously been needed.

The Southern California office has also been enlarged and a full-time secretary employed. This office now contains the director and an associate director of public relations, their secretary, and a consultant on television production in the Los Angeles area.

Both offices are well equipped with modern and well-maintained business equipment. Regular policy calls for staggered annual purchases of such items as typewriters, so that the inventory is fully turned over every four or five years and the mechanical features maintained in top order.

The Association's books are maintained in accordance with requirements set down by the certified public accountants and are subjected to an annual audit. The membership records, which are so closely tied in with the bookkeeping function, become a part of the annual audit and are in excellent condition. Official minutes are kept in their own books after having been subjected to review and approval by the Council.

2. *Membership:* The official membership of the component county societies is shown in the list below, in accordance with by-law requirements.

MEMBERSHIP (ACTIVE) IN THE C.M.A. AS OF NOVEMBER 1, 1953—BY COUNTY SOCIETIES

Alameda-Contra Costa	1097
Butte-Glenn	72
Fresno	228
Humboldt	63
Imperial	46
Inyo-Mono	10
Kern	141
Kings	28
Lassen-Plumas-Modoc	16
Los Angeles	4968
Madera	14
Marin	103
Mendocino-Lake	31
Merced	41
Monterey	127
Napa	57
Orange	247
Placer-Nevada-Sierra	55
Riverside	142
Sacramento	293
San Benito	10
San Bernardino	264
San Diego	563
San Francisco	1501
San Joaquin	161
San Luis Obispo	61
San Mateo	299
Santa Barbara	162
Santa Clara	398
Santa Cruz	79
Shasta	30
Siskiyou	20
Solano	67
Sonoma	123
Stanislaus	105
Tehama	10
Tulare	86
Ventura	81
Yolo	34
Yuba-Sutter-Colusa	40
Total	11,873

Each component society is entitled to one delegate and one alternate for each 50 active members, or major fraction thereof, as of November 1 of the preceding calendar year. The totals shown above are therefore the basis for representation in the 1954 House of Delegates. Each society is guaranteed a minimum of two delegates.

It is interesting to note that the Association's membership went even higher by December 31, 1953. On that date the American Medical Association made its official membership count and registered 12,052 active, dues-paid members from California. This number entitles the Association to an additional delegate to the A.M.A. An election of this new delegate was held at the 1953 Interim Session of the C.M.A. House of Delegates, so that California will be represented by thirteen delegates to the A.M.A. this year. This is the second straight year in which a new California delegate has been added.

3. *Meetings:* The executive secretary has attended all meetings of the Council and Executive Committee. He has also sat in with a number of committees on particular programs, has attended the two meetings of the A.M.A. and has visited a number of the county societies in company with the President or the President-Elect.

4. *Financial:* A complete financial report for the fiscal year ended June 30, 1953, appears as the Treasurer's Report on another page of this issue. Inasmuch as the Association's finances are directed by the executive secretary, a few comments are in order here.

Over all, the 1953 fiscal year produced a surplus of $42,570 of revenues over expenditures, compared with a surplus of $52,300 for the preceding year. Revenues were up $22,064 and expenditures were $31,835 higher. Costs went up in all three categories set forth by the certified public accountant, namely: administrative, scientific-educational-public relations, and journal. A portion of the increase is chargeable to nonrecurring items, such as a cost of $8,800 to improve and enlarge the headquarters office. Conversely, equipment purchases for the year were down $2,164 from the preceding year and the item of organization expense, representing costs of litigation, went down $15,350.

On controllable administrative expenses, the increase for the year was 5.1 per cent, which compares favorably with the 4.7 per cent membership increase for the year.

It must be expected that operating expenses increase with an increase in membership; a review of total revenues and expenditures over the years will show such a trend. In the new office quarters, more employees are needed to handle the increased volume of work and this is reflected in the current figures. A study of the comparative figures in the auditor's report is recommended.

CALIFORNIA MEDICINE showed a drop of $1,401 in revenues and an increase of $5,499 in costs last year, resulting in a net profit from the publication of $18,632. This profit goes to the general fund and is available for all organization purposes.

In the January, 1954, issue of the journal, a breakdown of all revenues and expenditures was printed. This showed, in terms of both dollars and percentages, where the Association's funds come from and where they go. It also translated these figures into terms of dollars and cents in comparison with the $40 annual dues. This item has also appeared in several county society bulletins.

5. CALIFORNIA MEDICINE: The journal continues to enjoy a high degree of prestige nationwide. Its format and con-

tents are continually undergoing advances, in accordance with the suggestions of the Editor and his consultants, and further improvements are planned. The journal is designed to serve the membership and ideas and suggestions are always welcome.

6. *Public Policy and Legislation:* The executive secretary continues to work with the Committee on Public Policy and Legislation and its direct representatives. The central office serves as a clearing house for many activities in this connection, both on a state and a national basis.

7. *Public Relations:* The executive secretary cooperates with all public relations activities of the Association and sits in on the planning, coordination and operation of them. While he is not charged directly with the management of this important function, he is in very close touch with it throughout and works closely with the director and his two associates. In addition he serves as a member of the public relations advisory committee of the American Medical Association, one of the nine lay and professional members of that body.

8. *Annual Session:* The 1954 Annual Session will be arranged very much the same as the 1953 meeting. All meetings will be held in or near the Biltmore Hotel, Los Angeles, and all exhibits will be housed in the hotel. Current prospects point to a most successful meeting.

For 1955 the Council has selected San Francisco as the Annual Session site. This will pose additional problems in that all scientific meetings and all exhibits will be housed in the Civic Auditorium and sessions of the House of Delegates will be held in a downtown hotel. However, it is believed that this situation can be adequately met to insure a good meeting. The constant growth of the Association narrows the convention sites available and makes it difficult to insure a smooth operation in limited quarters.

9. *Conclusion:* In conclusion, hearty thanks are extended to all members of the Association's staff, to all Officers, Councilors and committee members, and to all those so closely associated with C.M.A. activities. A splendid spirit of cooperative action has been evident throughout the year and has helped immeasurably to produce an efficient and smooth running of the Association.

Respectfully submitted,

JOHN HUNTON, *Executive Secretary*

REPORT OF LEGAL DEPARTMENT

To the President and the House of Delegates:

The Legal Department submits the following report, covering the interval between the 1952 annual session and the time of the presentation of this report, February 10, 1954:

We submitted a verbal report to the House of Delegates at the December 1953 Interim Session, which is published as part of the proceedings of the Interim Session in the February 1954 issue of CALIFORNIA MEDICINE, and we will not reiterate the matters therein covered.

During the past year, we have attended all meetings of the House of Delegates, the Council and the Executive Committee, as well as meetings of various commissions, standing committees and special committees of the Association. We have also prepared and submitted opinions on a variety of subjects, as requested by the Association or its officers or component societies.

In addition to our general advisory services, there are several specific items that warrant discussion at this time.

1. *Legal status of county medical soceties:* We prepared, and the 1953 California Legislature adopted, a bill adding a new section (21200.5) to the Corporations Code, permitting unincorporated county medical societies to have the same advantages as nonprofit corporations, with respect to liability for debts and obligations. This section provides that the individual members of county medical societies are not liable for debts or obligations incurred by the society in the ordinary course of its affairs. Enactment of this law eliminates for practical purposes the necessity of incorporating county medical societies, and permits such societies to function without the restrictions on expenditures of funds that apply to corporations.

2. *Unlicensed practice:* The case of *Complete Service Bureau et al. versus San Diego County Medical Society et al.* is now pending before the California Supreme Court. Oral argument was held in Los Angeles on January 13, 1954, and all written briefs have been filed. The case was submitted for decision on February 3, 1954, and a final decision by the Supreme Court may be expected prior to the annual session.

3. *Unlicensed "Prepaid medical plans":* The decision in *Maloney vs. American Independent Medical & Health Association* by the District Court of Appeal, Fourth Appellate District, has become final. This decision upheld the action of the Insurance Commissioner in seizing and liquidating A.I.M. This organization (A.I.M.) was incorporated as a "non-profit corporation" by two laymen, Mr. and Mrs. Jesse Fortune. For several years it used door-to-door salesmen to sell so-called "medical service contracts" to the public. These contracts for small monthly "dues" purported to cover the purchasers' medical and surgical expenses. The Appellate Court pointed out that when the Insurance Commissioner took possession of the A.I.M. books and records, he found that 85 per cent of all moneys received had been spent for overhead and promotion, and that only 12 per cent of the money received had been used to pay medical and surgical costs. The Appellate Court decision is of great importance in establishing a legal precedent in this state for the prosecution of fly-by-night "prepaid medical care plans" that hold out to the public false or misleading promises, and attempt to sell a service which they cannot provide. The Assembly Interim Committee on Finance and Insurance, which conducted a thorough investigation into the activities of unregulated prepaid health plans in 1949 and 1950, is entitled to a great deal of credit for having first brought to light the nature of the activities of A.I.M.

A more detailed report on major developments in the medical-legal field will be submitted to the House of Delegates in the form of a supplemental report at the time of the annual session.

In addition to the writer of this report, both Mr. George A. Smith and Mr. Alan L. Bonnington, of our San Francisco office, and Mr. Louis M. Welsh, of our Los Angeles office, have been available to the Association throughout the year, and have performed many tasks on behalf of the Association and its component societies.

Mr. Bonnington, in particular, devoted a great deal of time and energy in the defense of the Alameda-Contra Costa County Medical Association in a case brought against it by an expelled physician, and was successful in securing a decision favorable to the county society in the Superior Court in Contra Costa County. The physician who had been expelled brought legal action for reinstatement of membership and for damages. The Trial Judge found that the expulsion proceeding had been properly conducted, and that there was legal ground for the action taken by the Society.

It is a pleasure to be of service to the medical profession of California.

Respectfully submitted,

PEART, BARATY & HASSARD

By Howard Hassard

REPORT OF THE TREASURER

To the President and the House of Delegates:

The Treasurer was reelected by the Council in May 1953. The actual duties of this office are nominal, the real handling of monies being performed by the office staff at 450 Sutter, San Francisco. All of these employees are bonded, as well as the officers of the Association.

The incoming monies of the accounts are kept in a manner recommended by the auditing firm of John F. Forbes and Company, who also check the presence of cash, securities and other assets, and certify to these.

Submitted herewith is the series of accounts for the fiscal year July 1, 1952, to June 30, 1953. Members are urged to study these accounts for a true picture of the Association's financial situation.

Respectfully submitted,
ALBERT C. DANIELS, *Treasurer*

CALIFORNIA MEDICAL ASSOCIATION

BALANCE SHEET, JUNE 30, 1953

ASSETS

CASH		$141,438.55
ACCOUNTS RECEIVABLE		8,887.97
LOAN RECEIVABLE—NEW MEXICO PHYSICIANS' SERVICE	$ 8,750.00	
Less reserve	8,750.00	
Remainder		
OTHER LOANS RECEIVABLE	$52,094.00	
Less reserve	49,864.00	
Remainder		2,230.00
INVESTMENT IN U. S. TREASURY BILLS (at cost)		298,355.00
TRUST FUND (contra)		1,337.46
FURNITURE AND FIXTURES (at nominal value)		1.00
DEFERRED CHARGES		1,378.55
DEPOSITS		625.00
TOTAL		$454,253.53

LIABILITIES

ACCOUNTS PAYABLE		$ 17,238.61
ACCRUED EXPENSES:		
American Medical Association—Delegates' and other expenses	$ 3,793.87	
Annual session expenses	10,636.66	
Committees' and sundry	11,381.18	
Payroll taxes	279.34	
Total		26,091.05
TRUST ACCOUNT—PHYSICIANS' BENEVOLENCE FUND (contra)		1,337.46
DEFERRED INCOME—PREPAID ADVERTISING		165.80
SURPLUS, EXHIBIT A		409,420.61
TOTAL		$454,253.53

EXHIBIT A

EXCESS OF INCOME OVER EXPENDITURES		$ 42,529.85
SURPLUS CREDITS:		
Reduction in reserves for loans:		
New Mexico Physicians' Service	$ 500.00	
Blood banks	38,807.50	
Increase in cash surrender value of life insurance policies	5,838.93	
Total		$45,146.43
TOTAL		$ 87,676.28
SURPLUS CHARGES:		
Expenses applicable to a prior period		$ 1,817.35
Transfer legal ownership of life insurance policies, at the cash surrender value at June 30, 1953, to the Trustees of the California Medical Association		14,487.97
TOTAL		$ 16,305.32
INCREASE IN SURPLUS FOR THE YEAR		$ 71,370.96
SURPLUS, JULY 1, 1952		338,049.65
SURPLUS, JUNE 30, 1953		$409,420.61

CALIFORNIA MEDICAL ASSOCIATION

INCOME AND EXPENDITURES FOR THE FISCAL YEAR ENDED JUNE 30, 1953

INCOME

	Fiscal Year Ended June 30 1953	1952	Increase Decrease
1. Membership dues (exclusive of Journal Allocation)	$428,120.45	$412,378.91	$15,741.54
2. Annual Session	22,875.00	20,055.00	2,820.00
3. Miscellaneous Income	3,001.33	3,257.63	*256.30*
4. Interest Income	4,120.94	2,656.00	1,464.94
5. Postgraduate Courses	7,330.00	3,630.00	3,700.00
TOTAL REVENUES	$465.447.72	$441,977.54	$23,470.18

EXPENDITURES

ADMINISTRATION:			
6. A.M.A. Meeting Expense	$ 20,286.29	$ 10,481.37	$ 9,804.92
7. Annual Session Expense	30,606.30	31,174.35	*568.05*
8. Employees' Annuities	7,669.90	5,173.32	2,496.58
9. Council-Executive Committee Meetings	4,560.89	2,194.95	2,365.94
10. Equipment Expense	1,777.11	3,940.89	*2,163.78*
11. Legal Department	19,583.32	12,065.15	7,518.17
12. Los Angeles Office Expense	2,123.71	1,897.91	225.80
13. Miscellaneous Expense	366.11	80.25	285.86
14. Office Supplies and Expense	6,582.52	6,076.07	506.45
15. Organization Expense	6,430.36	21,780.37	*15,350.01*
16. Rent	6,884.56	5,686.96	1,197.60
17. Telephone and Telegraph	2,514.66	2,354.02	160.64
18. Payroll Taxes	1,554.47	2,193.21	*638.74*
19. Pensions	4,260.00	4,260.00	----------
20. Postage	1,560.85	1,067.48	493.37
21. Salaries:			
(a) Administrative	32,500.00	30,508.40	1,991.60
(b) Clerical	15,870.20	12,408.40	3,461.80
22. Secretarial Conference	1,071.50	1,145.31	*73.81*
23. Office Improvements	8,800.15	1,325.51	7,474.64
24. Travel:			
(a) Officers	406.33	351.23	55.10
(b) Council-Executive Committee	7,532.60	7,605.07	*72.47*
25. Woman's Auxiliary	1,750.00	1,750.00	----------
26. Student A.M.A.	2,940.15	1,708.05	1,232.10
TOTAL ADMINISTRATION	$187,631.98	$167,228.27	$20,403.71
SCIENTIFIC, EDUCATIONAL AND PUBLIC RELATIONS:			
27. Department of Public Relations	$ 94,836.05	$ 94,236.37	$ 599.68
28. Public Policy and Legislation	56,070.87	51,907.80	4,163.07
29. Physicians' Benevolence	11,803.00	10,935.75	867.25
30. Postgraduate Activities	25,991.72	19,530.05	6,461.67
31. Cancer Commission	26,028.50	15,201.50	10,827.00
32. Other Committee Activities	33,286.71	48,206.51	*14,919.80*
33. Subscriptions to Libraries	5,901.50	5,467.88	433.62
34. Contribution to Student Nurse Recruitment	----------	2,500.00	*2,500.00*
TOTAL SCIENTIFIC	$253,918.35	$247,985.86	$ 5,932.49
TOTAL, EXCLUSIVE OF JOURNAL	$441,550.33	$415,214.13	$26,336.20

INCOME AND EXPENDITURES FOR THE FISCAL YEAR ENDED JUNE 30, 1953

INCOME

	Fiscal Year Ended June 30 1953	1952	Increase Decrease
1. Advertising	$114,879.91	$117,683.06	$ *2,803.15*
2. Members' Subscriptions Allocated from Dues	35,944.50	34,660.50	1,284.00
3. Other Subscriptions	2,753.90	2,609.20	144.70
4. Reprints (net)	522.93	554.75	*31.82*
TOTAL REVENUES	$154,101.24	$155,507.51	$ *1,406.27*

EXPENDITURES

5. Printing	$ 90,456.60	$ 84,623.25	$ 5,833.35
6. Advertising Sales Expense	11,467.23	14,667.16	*3,199.93*
7. Salaries	17,519.51	16,795.04	724.47
8. Rent	3,041.12	2,744.68	296.44
9. Telephone and Telegraph	1,572.19	1,046.65	525.54
10. Postage and Mailing	4,953.53	4,499.02	454.51
11. Addressograph	1,887.51	1,703.94	183.57
12. Illustrations	1,907.95	1,630.64	277.31
13. Advertising Discounts and Collection Expense	2,061.47	2,114.19	*52.72*
14. Sundry	601.67	145.37	456.30
TOTAL EXPENSES	$135,468.78	$129,969.94	$ 5,498.84
NET PROFIT	$ 18,632.46	$ 25,537.57	$ *6,905.11*

TRUSTEES OF THE CALIFORNIA MEDICAL ASSOCIATION
(A California Corporation)

BALANCE SHEET, JUNE 30, 1953

ASSETS

CASH (including Trust Funds)		$ 29,088.56
INVESTMENTS (including Benevolence Fund investments)		1,140,000.00
TRUST FUND FOR CALIFORNIA MEDICAL ASSOCIATION EMPLOYEES—CASH SURRENDER VALUE OF LIFE INSURANCE POLICIES		14,487.97
TOTAL		$1,183,576.53

LIABILITIES

TRUST ACCOUNTS:			
Benevolence Fund		$ 57,894.42	
Morris Herzstein Bequest Fund		6,715.25	
Total Trust Accounts			$ 64,609.67
ENDOWMENT FUND			276.74
TRUST FUND FOR CALIFORNIA MEDICAL ASSOCIATION EMPLOYEES			14,487.97
SURPLUS:			
Contributed surplus		$882,915.99	
Earned surplus:			
Balance, June 30, 1952	$193,975.04		
Net income for year, Exhibit B	27,311.12	221,286.16	
Total surplus			1,104,202.15
TOTAL			$1,183,576.53

EXHIBIT B

TRUSTEES OF THE CALIFORNIA MEDICAL ASSOCIATION

STATEMENT OF INCOME FOR THE YEAR ENDED JUNE 30, 1953

INCOME—INTEREST ON BONDS			$ 27,135.82
EXPENDITURES:			
Audit fee		$300.62	
Custodian fee		345.63	
Miscellaneous		100.32	
Total			746.57
REMAINDER			$ 26,389.25
ADD—THE EXCESS OF MATURITY VALUE OVER COST OF BONDS PURCHASED DURING THE YEAR, CHARGED TO THE BOND ACCOUNT TO REFLECT MATURITY VALUE OF THE BONDS			921.87
TOTAL			$ 27,311.12

REPORTS OF DISTRICT COUNCILORS

FIRST COUNCILOR DISTRICT

San Diego County

To the President and the House of Delegates:

During the past year I have attended the meetings of the Council and the Interim meeting of the House of Delegates, the minutes of which have been duly reported in CALIFORNIA MEDICINE.

During the past year I have served as chairman of the Public Health and Public Agencies Committee, which has had numerous meetings with representatives of the State Department of Public Health concerning problems of mutual interest.

The San Diego Blood Bank has operated very efficiently during the past year as a member of the California Blood Bank System, and has recently acquired properties and will move into new quarters the first of this year.

It has been my pleasure to serve as Councilor of the First District, and I hope to continue to correlate the activities of the San Diego County Medical Society and the California Medical Association.

Respectfully submitted,

FRANCIS E. WEST, *Councilor*
First District

SECOND COUNCILOR DISTRICT

Imperial, Inyo, Mono, Orange, Riverside and San Bernardino Counties

To the President and the House of Delegates:

Visitations have been made to all the associations comprising the Second Councilor District.

The physicians of Orange County are to be especially congratulated for the manner in which they managed the medical problems associated with the Boy Scout Jamboree. Each member gave unselfishly of his time in a manner deserving the highest commendation of the California Medical Association.

A cooperative program with the Imperial County Medical Association and the Imperial County Board of Supervisors has been approved, which will insure the best available medical care to the indigent patients of Imperial County. This was made possible through a joint meeting with the supervisorial boards of Riverside and Imperial counties with the assistance of a committee of doctors from each county.

A student health plan is being completed by Riverside County doctors with the University of California at Riverside. This plan provides free choice of physicians and a voluntary panel.

Visitations of the state officers, Mr. Ben Read and the public relations officers have been well received by all the county medical associations and the continuation of these annual visitations is strongly urged.

Your Council continues to function effectively under the capable leadership of Dr. Sidney Shipman.

Published reports of the Council proceedings are published in the official journal.

Respectfully submitted,

OMER W. WHEELER, *Councilor,*
Second District

THIRD COUNCILOR DISTRICT

Los Angeles County

To the President and the House of Delegates:

I have attended all of the meetings but one of the Council during the last year and I wish to state that, as far as I can see, the operations of the California Medical Association are in good condition.

Respectfully submitted,

H. CLIFFORD LOOS, *Councilor,*
Third District

FOURTH COUNCILOR DISTRICT

Los Angeles County

To the President and the House of Delegates:

In various areas of the Fourth Councilor District there have been serious crises that have been met with varying degrees of success by the doctors of the areas involved. There is a growing sense of self-reliance among the doctors in the area and this has led to a better understanding of the whole problem of public relations.

It is good to note that there has been a change of feeling toward California Physicians' Service by many physician members who now feel that California Physicians' Service is an instrument of the California Medical Association to be used by the various groups to further their public relations and help solve their difficult problems.

Respectfully submitted,

J. PHILIP SAMPSON, *Councilor,*
Fourth District

FIFTH COUNCILOR DISTRICT

San Luis Obispo, Santa Barbara and Ventura Counties

To the President and the House of Delegates:

Since my election as Councilor for the Fifth District last spring I have spent considerable time reading and studying in order to become acquainted with and gain some insight into the many problems now confronting the medical profession in California and the United States in general. I have attended all of the meetings of the Council except one which was held while I was in Chicago attending the American College of Surgeons meeting.

I have been in close contact with President-elect Morrison, the delegates of San Luis Obispo, Santa Barbara and Ventura counties and members of the legal and public relations department concerning problems dealing with the Fifth District.

This month I am meeting with the Santa Barbara and Ventura County Medical Societies for the purpose of discussing problems which need to be brought before the Council.

As advisory member to the C.M.A. Cancer Commission I have attended the meetings and have been particularly interested in the problems confronting and being so well handled by this organization under the leadership of Dr. Macdonald.

Since the founding of the California Postgraduate Institutes I have worked with Dr. Broaddus and other members representing the tri-counties to help make these meetings entertaining as well as educational.

Respectfully submitted,

ROBERT O. PEARMAN, *Councilor,*
Fifth District

SIXTH COUNCILOR DISTRICT

Calaveras, Fresno, Kern, Kings, Madera, Mariposa, Merced, San Joaquin, Stanislaus, Tulare and Tuolumne Counties

No report, due to the illness of Neil J. Dau, Councilor.

SEVENTH COUNCILOR DISTRICT

Monterey, San Benito, San Mateo, Santa Clara, and Santa Cruz Counties

To the President and the House of Delegates:

The Seventh Councilor District has seen a distinct growth in medical personnel. The distribution of doctors is now such that there are no areas that are not within reach of adequate medical care. The location in many of our communities by specialists in the field of medicine has given the District a much more adequate medical coverage in every field.

Santa Clara County has seen the establishment of a new and rebuilt San Jose hospital with an increase in beds. Salinas is operating its district hospital with success. The Peninsula Hospital in San Mateo County is finished and will be occupied in the near future. While there are still not adequate beds in the Seventh District, efforts are continuing to fill the needs. One area of the District has seen the establishment of a group-controlled medical insurance plan.

Santa Clara County has been leading the way in establishing liaison committees throughout the Bay Area to further the dissemination of medical knowledge, medical care plans and medical insurance ideas.

Santa Cruz County has been most active as the County Society has made a survey of the facilities for the care of the mentally ill, and has made recommendations for meeting the most serious deficiencies in the care of these patients. A new constitution and by-laws have been written. This new constitution will provide a governing board for the society through which official business can be transacted as the Society has grown in number to such a place as to make an executive committee a necessity.

The visit to the various societies of our state officers has done much to explain the work of the State Society and to enlighten the members of each society concerning the most recent trends in the problem of medical care.

Respectfully submitted,

HARTZELL H. RAY, *Councilor,*
Seventh District

EIGHTH COUNCILOR DISTRICT

San Francisco County

To the President and the House of Delegates:

During the past year I have again been honored to serve as chairman of the Council and to attend all Council meetings. The activities of the Council have been reported in minute form during the year and the report of the Council in this issue reflects a summary of Council considerations and decisions.

Respectfully submitted,

SIDNEY J. SHIPMAN, *Councilor,*
Eighth District

NINTH COUNCILOR DISTRICT

Alameda and Contra Costa Counties

To the President and the House of Delegates:

During 1953 the Alameda-Contra Costa Medical Association completed and occupied its new building, which houses the Blood Bank, the Bureau of Medical Economics, and the administrative offices of the Association.

Much of the activity of the Association during 1953 has centered around the implementation of the C.M.A.-C.P.S. Study Committee report of 1952, including the preparation and circulation of a fee-study questionnaire to all members during the latter part of the year. These questionnaires are now being returned and their information tabulated. Upon completion, the results of the questionnaire will be reported to the membership, and the information used to institute the Median Fee Plan designed to solve problems of health insurance.

The Association has been active in consulting with union groups, employers, and insurance companies in order to assist the public in obtaining greater certainty of coverage for doctor bills under health insurance, and has employed an insurance consultant to assist in this activity.

The above described activity is the newest phase of the Association's continuing work in the public interest. The traditional policy of "medical care for all, regardless..." continues to be carried out through the many public service committees of the A.C.C.M.A.

Respectfully submitted,

DONALD D. LUM, *Councilor,*
Ninth District

TENTH COUNCILOR DISTRICT

Del Norte, Humboldt, Lake, Marin, Mendocino, Napa, Solano and Sonoma Counties

To the President and the House of Delegates:

During the past year in the visitation of the officers of the C.M.A. to the component county societies in my district, repeated use of the wire-tape recordings was made. It was, I think, particularly effective in the meeting in Eureka, of the Humboldt-Del Norte County groups. Some members there indicated, in addition, the pleasure that they had in subscribing to the medical excerpts and of the service that is being offered by this new activity of the California Medical Association. From the general meetings throughout my District, I believe one can say that the use of the transcripts for presenting the views of one or two officers of the C.M.A. is most effective. Reports and voices, however, of more than two such people are excessive and would, I believe, tend to detract from the interest and viability of the program.

President-elect Morrison's technique, he being the ranking officer present at most of the meetings, was to present in a serious and logical manner the salient activities of the C.M.A. with particular emphasis on those current problems and enterprises which are occupying the attention of most of the members. He made particular effort to emphasize those broad problems of the C.M.A. which were particularly pertinent and of interest to the county society being visited. I believe that this was most effective and served to impress our members with the sincere efforts of their society on their behalf.

This year effort was made on the part of the visiting officers to meet before the full meeting with the local elected officers of the society, so as to more directly obtain their views regarding C.M.A. and organized medicine problems. In this way a sense of personal interest and reciprocal responsibility was engendered. Every effort was made to invite suggestions and constructive criticisms, so that the visiting officers could more effectively carry out their obligations to the society as a whole.

At each meeting the reception from the point of view of cordiality, friendliness and interest was most heart-warming.

In Eureka the meeting of the officers was held at the Eureka Inn before the main banquet. Among many other problems that were discussed was the desire for some of the members to have a more active representative of C.P.S. in this area, since they felt that this was a very promising area where employer and employee groups were aggressively interested in medical insurance. Unfortunately this year I missed the visitation at the Mendocino-Lake County. I was out of the state at the time, so was not able to take the trip to Ukiah, much to my regret.

In Sonoma County we had the pre-meeting discussions at the family home of the president, Dr. Carl Anderson, and then adjourned to the main meeting in town.

The Solano County officers met ahead of time in the banquet room, and this was under the chairmanship of the president, Milton Smith. They, of course, have particularly pressing problems as regards to the closed-panel type of medical practice as exemplified by the Permanente group.

In Napa County, Dr. Fred Heegler, the president, and the secretary, Dr. Godfrey, were most helpful in their discussion of the way in which the visiting state officers could help that society in their own direct county problems. From that meeting we adjourned to the Napa Women's Club, where it was particularly pleasurable to have the wives of the physicians as well as the physicians themselves at the joint meeting.

At the time of this annual report, the meeting with the Marin County Society has not yet taken place. Your Councilor has, of course, attended all of the Council meetings during the year as well as the Interim Session. He has made a real effort to represent effectively the views of his District, and to act upon the queries and requests that the District members have made to him. I feel that it has been a good and productive year, and one in which the California Medical Association has made significant and well-deserved progress.

Respectfully submitted,

WARREN L. BOSTICK, *Councilor, Tenth District*

ELEVENTH COUNCILOR DISTRICT

Alpine, Amador, Butte, Colusa, Eldorado, Glenn, Lassen, Modoc, Nevada, Placer, Plumas, Sacramento, Shasta, Sierra, Siskiyou, Sutter, Tehama, Trinity, Yolo and Yuba Counties

To the President and the House of Delegates:

Since taking office in May 1953, your Councilor has attended meetings of nearly each county society in the District and has discussed the problems of those societies with their members. It is apparent that the doctors in this District are alert and aware of the present trends in the practice of medicine. There continue to be some problems in adequate hospitalization and in the problem of divided staffs between osteopaths and M.D.'s in two small hospitals of the District.

Because of the relatively small industrial population in the geographical area of this large District, the current difficulty with closed-panel group practice medical plans has not yet made itself felt; however, the Sacramento Society is making vigorous efforts to study and understand the problems of medical care insurance with a view to development of programs which can better satisfy the beneficiaries.

Your Councilor has attended all meetings of the Council held since his election and has attempted to maintain contact with the multitude of problems presented to that body.

Respectfully submitted,

RALPH C. TEALL, *Councilor, Eleventh District*

REPORTS OF COUNCILORS-AT-LARGE

To the President and the House of Delegates:

I have attended and participated in all Council meetings since my election and of the several committees assigned.

Respectfully submitted,

H. L. CAREY, *Councilor-at-Large*

To the President and the House of Delegates:

It has been a pleasure to serve our Association as a Councilor during the past year.

The problems confronting the Association receive thorough investigation and discussion before decisions are made, and I feel that the component county societies should endeavor to keep in as close touch with the workings at the state level as possible.

Respectfully submitted,

BEN FREES, *Councilor-at-Large*

To the President and the House of Delegates:

During the past year I have attended the regularly called meetings of the Council of the California Medical Association. I have participated in all of the deliberations in problems concerning the California Medical Association.

As chairman of the Insurance Committee of the California Medical Association, I was able to recommend to the Council for its adoption a plan for group health and accident for our membership, as submitted by the Lumbermen's Mutual Insurance Company. This plan was adopted by the Council and was submitted to the membership at large. On November 30, 1953, the plan had qualified and became effective for all participants as of 12:01 a.m. December 1, 1953. I wish, personally, to thank all who helped make this plan possible.

Respectfully submitted,

ARTHUR A. KIRCHNER, *Councilor-at-Large*

To the President and the House of Delegates:

As Councilor-at-Large I have attended the meetings of the Council of the California Medical Association and have taken part in the discussions and decisions of the Council. I have also carried out committee and other assignments.

I have endeavored to translate the wishes of the House of Delegates to the county societies, to other organizations, including the California Physicians' Service as a Council-appointed trustee, to the Blue Cross of Northern California as a member of their board of directors and to the members of the California Academy of General Practice as chairman of the board of directors of the American Academy of General Practice. In turn, requests, questions and problems of these organizations as well as the membership at large of the California Medical Association have been referred to the Council for suggestions or action.

Respectfully submitted,

IVAN C. HERON, *Councilor-at-Large*

To the President and the House of Delegates:

During the past year I have attended all of the Council meetings and have visited, along with the C.M.A. officers, county medical societies in Southern California. The reports of the Industrial Accident Fee Committee, Medical Services Commission, public relations, and Audio-Digest have been outstanding among the many important as well as routine items of business to come before the Council. They were

all studied, discussed, and acted upon in the best judgment of the Council.

The published reports and proceedings of the Council meetings indicate the large number of vital problems and the serious thought that has been given them and all affairs of the Association by the elected officers and employees.

Respectfully submitted,

ARTHUR E. VARDEN, *Councilor-at-Large*

To the President and the House of Delegates:

As Councilor-at-Large I have attended all of the meetings of the Council of the California Medical Association and have taken part in the affairs of the committees to which I have been assigned. I have also continued to sit on the Board of Trustees of California Physicians' Service and carry out committee assignments in that organization.

Respectfully submitted,

T. ERIC REYNOLDS, *Councilor-at-Large*

REPORTS OF COMMITTEES

EXECUTIVE COMMITTEE

To the President and the House of Delegates:

The Executive Committee has held meetings between Council meetings and such special meetings as were necessary. The Executive Committee has handled those matters which have been referred by the Council and other matters requiring emergency action. Routine matters, as well, have been handled by the Executive Committee in an effort to shorten the crowded agenda of the Council.

All actions are subject to confirmation by the Council and subsequently published in CALIFORNIA MEDICINE.

Members of the Executive Committee have given most generously of their time. I particularly wish to thank those members from the southern part of the state for attending the meetings in San Francisco, often on short notice.

Respectfully submitted,

DONALD D. LUM, *Chairman*

COMMITTEE ON ASSOCIATED SOCIETIES AND TECHNICAL GROUPS

To the President and the House of Delegates:

The Committee on Associated Societies and Technical Groups has had nothing referred to it and has held no meetings during the past year.

Respectfully submitted,

H. GORDON MACLEAN, *Chairman*

AUDITING COMMITTEE

To the President and the House of Delegates:

The budget for the fiscal year 1953-54 was presented to the Council at the annual meeting in Los Angeles, May 1953.

The budget for 1954-55 is now under preparation and will be presented at the next annual meeting. Expenditure items were reviewed month by month.

An article "C.M.A. Dues" was published in CALIFORNIA MEDICINE, January 1954 detailing the expenditure of your C.M.A. dollar.

An audit by a certified public accounting firm found all records of the California Medical Association in good order. This report will be published in CALIFORNIA MEDICINE.

Respectfully submitted,

DONALD D. LUM, *Chairman*

COMMITTEE ON HISTORY AND OBITUARIES

To the President and the House of Delegates:

The records of our Society reveal that 119 of our colleagues have passed on during 1953. Among them are some patriarchs known to thousands of our members, but our Society is now so large and its membership increasing so rapidly it would be meaningless to single out any one of them in this report. *Requiescant in pace.*

Compilation of material for the Society's history has been going on quietly under the guidance of our late Honorary Historian, George H. Kress, for several years past. A thumbnail sketch of our history will be found elsewhere in this issue over his name. The passage of time is so swift and historical items often regarded so lightly and thus lost that I take this opportunity to request any member who has old programs, minutes of meetings, newspaper clippings, or any historical material in his possession to forward it to Society headquarters for safekeeping and future use in writing a history.

Respectfully submitted,

J. MARION READ, *Chairman*

COMMITTEE ON HOSPITALS, DISPENSARIES, AND CLINICS

To the President and the House of Delegates:

The Committee on Hospitals, Dispensaries and Clinics, which is an advisory committee, has completed its assignments and presented its reports to the proper authorities.

Respectfully submitted,

JAY J. CRANE, *Chairman*

COMMITTEE ON INDUSTRIAL PRACTICE

To the President and the House of Delegates:

As chairman of the Committee on Industrial Practice for the year 1953, I wish to report that up to the present time no matters have come before the Committee. I recently asked the other members if they had any subjects which they felt we should discuss, and received a negative answer.

I will supplement this report later if there is any activity on the Committee's part.

Respectfully submitted,

PACKARD THURBER, SR., *Chairman*

COMMITTEE ON MEDICAL ECONOMICS

To the President and the House of Delegates:

The full Committee met on Sunday, September 20, 1953, at the Sir Francis Drake Hotel in San Francisco for consideration of the Resolution Number Six which was introduced by Dr. Lester B. Lawrence of Alameda-Contra Costa County at the regular 1953 session held in Los Angeles.

By invitation Mr. Phillip A. Hershey, Certified Public Accountant, 405 Montgomery Street, San Francisco, and Dr. Lawrence were also present.

The Committee unanimously approved the Resolution and recommended its presentation to the Council of the California Medical Association for its consideration and recommendation to the House of Delegates at the interim session in San Francisco, December 12 and 13, 1953.

The House of Delegates at the interim session referred the Resolution to the Medical Service Commission for study.

Respectfully submitted,

L. H. FRASER, *Chairman*

COMMITTEE ON MEDICAL EDUCATION AND MEDICAL INSTITUTIONS

To the President and the House of Delegates:

No items have been presented to the Committee on Medical Education and Medical Institutions for its consideration during the calendar year 1953. For this reason the committee has not met, and therefore has no further report to make. Nevertheless, it stands ready at any time to be of assistance to the officers of the Association or the House of Delegates in the consideration of any matters within its field of responsibility which might be referred to it.

Respectfully submitted,

WALTER E. MACPHERSON, *Chairman*

COMMITTEE ON MILITARY AFFAIRS AND CIVIL DEFENSE

To the President and the House of Delegates:

The members appointed to this committee are as follows: Justin J. Stein, M. D., chairman, Los Angeles 1954; William L. Bender, M.D., San Francisco 1956; Frank F. Schade, M.D., Los Angeles 1955; John C. Ruddock, M.D. (Consultant), Los Angeles.

MILITARY AFFAIRS, NORTHERN CALIFORNIA

In recent months there have occurred several events which affect significantly the activities of the Northern California Advisory Committees, now numbering 57 with 256 members. First, on July 1, 1953, the doctor-draft law was extended for two years and amended; second, the Korean War ended; and third, on September 22, Selective Service System directed local boards to discontinue the processing of special registrants since no calls were expected from the Armed Forces for physicians or veterinarians, and few if any for dentists, before next summer. The reason for this action is a reservoir of such reserve officers which is expected to supply all calls for that period. The net results are important changes in the vulnerability of certain special registrants and reduction of the work-load of the Advisory Committees.

The chief provisions of the current doctor-draft law and of the Defense Department directive which implements it are:

PUBLIC LAW 84, 83RD CONGRESS

(1) The four priorities remain, with these modifications:

(a) Priorities 1 and 2 are allowed credit for active duty since September 16, 1940 and not solely for service after completion of, or separation from, the professional training program in which they participated during War II.

(b) Priority 2 now is required to have served 17 months instead of 21 months as in the past, to qualify as veterans in priority 4.

Under these two provisions many in priorities 1 and 2 now qualify for priority 4. Most of them have been called up, but Selective Service is in the process of reclassification, even though they may be on active duty, since this provision is retroactive.

(c) Other special registrants and reservists are in priority 4 if they have served one day or more since September 16, 1940, the effective date of the basic draft-law.

(2) Length of time required of men now on duty or yet to be called up depends on previous service, as follows:

Prior Active Duty	Required Active Duty
Less than 9 months	24 months
More than 9 months and less than 12 months	21 months
More than 12 months and less than 15 months	18 months
More than 15 months	15 months

(3) A tour of duty in non-professional capacity confers credit equal to that as a doctor.

(4) Credit is no longer given for the time spent in other training courses, such as engineering. Such special registrant is in priority 3 if he has seen no other service, and in priority 4 if he has for one day or more.

(5) Active duty with an allied nation during War II prior to September 2, 1945 receives the same credit as with our own forces.

(6) Aliens are eligible to serve as medical, dental and veterinary officers in the Armed Forces.

(7) One who has more than 21 months since September 16, 1940 to his credit can be called up only in time of war or national emergency declared by Congress, and not by any provision of the doctor-draft law.

(8) Resignation of commission on release from active duty is provided for. However, the man is required then to register with Selective Service, if he has not done so previously and has not yet reached his 51st birthday.

(Terminal leave may be credited as active duty if separation occurred before October 1, 1947, but not after that date.)

(9) The $100 monthly incentive pay is continued.

(10) The Advisory Committees remain in force; current procedures relative to qualifications for deferment are more fully defined.

RELOCATION OF RETURNING VETERANS

The same procedure as outlined in the September 30, 1952, letter has been continued, and expanded for physicians with the cooperation of the Physicians Placement Service of the California Medical Association. The Service maintains an up-to-date list of opportunities to enter practice here and this information is sent to each physician-veteran whose name is referred to this office as one who would settle in Northern California. In addition, we write personal letters to applicants who we feel will be qualified for, and attracted by, opportunities which have come to our attention. There have been many inquiries, and we feel sure that we have helped some locate in communities and institutions which need them, though we have not been able to maintain a follow-up system to tell you numerically.

Almost all relocation activity has been among physicians; very few out-of-state dental, and no veterinary, veterans have indicated a desire to come to this area.

ADVISORY TO THE SELECTIVE SERVICE SYSTEM

As a result of the large pool of reservists and the few calls on Selective Service System by the Armed Forces expected until next summer, there will be few requests for recommendations from the Advisory Committees. However, they will come again when the current supply of reservists has been exhausted. So our organization must remain intact and ready to function when called upon.

NATIONAL ADVISORY COMMITTEE

The National Advisory Committee has just advised of the following policy applicable to reserve officers and special registrants whose appointment as hospital residents is being considered:

Priorities 1 and 2, with rare exception, are to be judged available and not deferrable.

Priority 3, dual-liability, is expected to enter service on completion of internship, without exception.

Priority 3 between ages 28 and 31 as of June 19, 1953, are expected to be ready for active duty on completion of current internship or residency.

SUMMARY OF CLASSIFICATION, SPECIAL REGISTRATION NO. 1, FOR NORTHERN CALIFORNIA, AUGUST 31, 1953

Classifications	Total	Medical				Dental				Veterinary			
		Pr. 1	Pr. 2	Pr. 3	Pr. 4	Pr. 1	Pr. 2	Pr. 3	Pr. 4	Pr. 1	Pr. 2	Pr. 3	Pr. 4
Total living	5474	474	74	1094	2121	160	14	537	700	77	7	117	99
Total classified	2387	473	71	1054	.....	160	14	533	.....	76	6	.....	.....
I-A and I-A-O examined and acceptable	631	40	4	375	.....	12	2	184	.....	13	1	.....	.....
I-A and I-A-O not examined	199	4	2	175	.....	.....	.....	15	.....	3	.....	.....	.....
I-A postponed	7	3	.....	1	.....	.....	.....	3	.....	.....	.....	.....	.....
I-C (inducted)	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
I-C (enlisted or commissioned and on extended active duty)	445	236	22	31	.....	101	4	35	.....	16	.....	.....	.....
I-C (discharged)	17	8	1	.....	.....	7	.....	1	.....	.....	.....	.....	.....
I-C (reserve)	35	21	2	.....	.....	10	2	.....	.....	.....	.....	.....	.....
I-O examined and acceptable	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
I-O not examined	2	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
I-W	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
I-W (released)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
I-D	109	29	11	23	.....	8	1	25	.....	11	1	.....	.....
II-A	253	18	6	159	.....	3	1	40	.....	24	2	.....	.....
II-S	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
III-A	45	5	8	13	.....	6	.....	11	.....	2	.....	.....	.....
IV-A	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
IV-B	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
IV-C	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
IV-D	2	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
IV-F	450	105	14	185	.....	12	4	121	.....	7	2	.....	.....
V-A	185	.....	.....	90	.....	.....	.....	95	.....	.....	.....	.....	.....
Total cancelled	47	7	2	16	12	2	.....	2	3	.....	.....	1	2
Total deceased	34	.....	.....	9	8	.....	.....	9	3	.....	.....	.....	.....

We are asked to advise hospitals to observe this order of vulnerability in selecting residents. Those expected to rise through a series of residencies in the pyramid system should be individuals not liable for military service.

Office of Defense Mobilization this year has sent forms to the nation's hospitals on which to report their complement of house-staff, with particular reference to the military status of each individual. Such tables of organization help us determine essential positions and the availability of personnel filling them.

It is gratifying to learn that active planning is under way to terminate the doctor-draft as unnecessary by the time the current law expires July 1, 1955. Dr. Howard A. Rusk, chairman of the Health Resources Advisory Committee (same personnel as our National Advisory Committee) has recommended further reduction of physician-troop ratio from a projected 3.2 to 2.9. Defense Department's expected proposal for federal scholarships for professional students, each year of such training to be matched by a year of obligatory service subsequently, is intended to increase the proportion of regular professional officers, currently amounting only to 25 per cent. This may prove controversial. More efficient utilization of personnel and medical care of military dependents are subjects to be explored.

Policy and Procedure

Policy and procedure relative to recommendations for occupational deferment remain as outlined in detail in our letter of September 30, 1952. We reemphasize the fact that we are authorized to recommend deferment for occupational reasons only; that is, that the special registrant in question must be more useful for the time being in his civilian position than he would be with the Armed Forces. Such periods of deferment are temporary and limited to six months. To qualify for redeferment after the expiration date, a special registrant must present evidence of sincere effort to secure replacement. Each deferment is to be judged individually. There are no exemptions.

A low ratio of professional men to population in an area is not alone cause for deferment. When such exists, it is the duty of all concerned, vulnerable special registrants, Local Advisory Committees and other interested citizens, to encourage others to locate in their community. As pointed out above, many returning physician-veterans want to settle in Northern California. If your area is undermanned in physicians, this office and the Physicians Placement Service of the California Medical Association should be notified. We have the means of supplying physicians needed. As stated above, we have received few dental and no veterinary applications but localities in short supply are expected to exhaust other sources such as professional schools and associations, and commercial agencies.

Advisory to the Armed Forces

There is very little activity in this field. Those reservists available before the doctor-draft have been called up long ago. Furthermore, most men commissioned subsequently already have been screened by us for Selective Service, so their availability for active duty already has been determined by the time they receive a commission.

Respectfully submitted,

William L. Bender, *Chairman*

The other members of this committee are: L. Louise Baker, R.N., H. S. Cameron, D.V.M., John W. Leggett, D.D.S., Wilton L. Halverson, M.D.

MILITARY AFFAIRS, SOUTHERN CALIFORNIA

The Southern California Advisory Committee has acted as an advisory group under Public Law 779 until July 1, 1953. At this time Public Law 779 expired and Public Law 84, 83rd Congress, was substituted in its place. This law modifies to a certain extent many objectionable factors that were present in the old law. However, it does not change the liability of physicians up through the age of 51 years. The old priorities are still in effect. The Southern California geographical area includes the following counties: Los Angeles, Kern, Santa Barbara, Ventura, San Bernardino, Orange, Riverside, San Diego, Imperial and the combined counties of Inyo, Alpine and Mono.

The Committee is composed of the following: John C. Ruddock, M.D., chairman; Wilton L. Halverson, M.D., Maurice Smith, D.D.S., Paul C. Lockhart, D.V.M., Helen D. Halvorsen, R.N.

The great majority of special registrants are centered in the large areas of population such as the cities of San Bernardino, Bakersfield, Santa Barbara, San Diego, Santa Ana, Riverside and Los Angeles.

The number of total figures has been changed somewhat during 1953 because under Public Law 84, many physicians

classified as Priority II have been changed to Priority IV inasmuch as the amount of active duty since December 7, 1941 has been reduced to seventeen (17) months rather than twenty-four (24) as previously. Because the physical requirements are now lower than formerly, there have been many changes from classification IV-F to classification I-A, the priority remaining the same. In July, 1953, the Selective Service System announced there would be no further inductions under the Act until those special registrants who had been inducted and forced to get commissions but have had no active duty were exhausted in the call-up for active duty. In addition, it was further declared by the Department of Defense that no further men would be inducted in Priority III until all those individuals in priorities I and II who had previously been deferred were called to active duty.

It is anticipated that this moratorium will continue until approximately July, 1954. In the meantime, the Southern California Advisory Committee to Selective Service is processing all physicians in this area who will become vulnerable for military service at that time as well as graduates who will have finished one year's internship and will become available for military service immediately before starting a residency. It is expected that with the new graduates and with the small list of available Priority I and II doctors, it is hoped and anticipated that no further induction lists will be issued prior to July 1, 1955 at which time the public law aimed at the induction of doctors, dentists and veterinarians will expire. This postponement of inductions for physicians in practice will not be accomplished if doctors persist in claiming deferments for recent graduates with a completed one year internship or for the few remaining Priority I and II physicians. Every doctor in this type of group who is deferred will subtract one physician from the list of Priority III doctors who are already in the practice of medicine in the southern area. There is included in this report the following table of special registrants in Southern California as of date August 31, 1953.

Total Living Special Registrants—7318 (total in four priorities).

Total Classified Special Registrants—2501 (this total includes medical, dental, and veterinarians in all three priorities). Of these the following is true for *physicians:*

PRIORITY I—518 Living Special Registrants

I-A	46	Classified as available (33 have been physically examined, found acceptable and are awaiting induction; 11 are professionally available but have not been physically examined; 2 have had temporary postponements of induction).
I-C (Enl)	241	Accepted commissions and now on active duty.
I-C (Ind)	4	Actually inducted, now on active duty.
I-C (Dis)	2	Discharged from active service.
I-C (Res)	27	Completed active service, now holding reserve commissions.
I-D	50	Commissioned and awaiting active duty orders.
II-A	9	Deferred as essential.
III-A	3	Hardship classifications.
IV-A	3	Sole surviving son.
IV-F	127	Found not acceptable for commissioning as medical officers.

In the PRIORITY II group 95 living special registrants as follows:

I-A	11	(6 have been physically examined, found acceptable and are awaiting induction; 4 are professionally available but have not been physically examined; 1 has had temporary postponement of induction.)
I-C(Enl)	28	Accepted commissions and now on active duty.
I-C (Dis)	1	
I-C (Res)	2	
I-D	16	
II-A	7	
III-A	5	
IV-F	17	

In the PRIORITY III group, 1,574 physicians are living in Southern California. As of August 31, 1953, 1,085 have been classified as follows:

I-A	105	Classified as available (examined and acceptable)
	256	I-A but not examined.
	4	Temporary postponement of induction (Priority III registrants born prior to 1912 have not been reviewed by this Committee).
I-C	35	Enlisted or commissioned and on extended active duty.
I-D	24	Commissioned and awaiting active duty.
II-A	428	Deferred because of essentiality.
III-A	11	Hardship.
IV-C	3	Aliens.
IV-D	2	Minister of religion.
IV-F	89	Found not acceptable for commissioning.
V-A	128	Over age of liability.
		Total cancelled—19.
		Total deceased—23.

PRIORITY IV—There are 2,883 physicians who have registered—none classified.

Respectfully submitted,

JOHN C. RUDDOCK, *Chairman*

CIVIL DEFENSE

This report will cover many of the activities of this committee regarding Civil Defense for the past three years. Many of the accomplishments of Civil Defense during 1953 were the result of considerable planning during the years 1951 and 1952. Dr. Frank Schade has been very active in Civil Defense in Southern California and has also attended national meetings. The chairman of this committee, Dr. Justin J. Stein, has been very active on both the state and federal levels and has also participated in the meetings of the radiological safety advisory committee for the State of California, and is a member of that committee.

During the past three years this committee has aided in the accomplishment of the following major projects:

1. Secure and set up the staff organization.

2. Prepare casualty estimates for the target areas, on basis of a 20 K.T. atomic bomb.

3. Prepare regional annexes and plans for a coordinated medical and health service throughout the state.

4. Set up and complete staff organization on state and regional levels.

5. Prepare estimates of cost of supplies (approximately $5,000,000).

6. Determine number of first aid stations required for the state (683).

7. Determine kinds and quantity of supplies required for first aid stations.

8. Determine number of aid stations for each region.

9. Prepare requisitions for supplies and correlate through supply division of civil defense and the state purchasing division.

This Committee has helped the State Office of Civil Defense prepare the following Civil Defense Manuals:

Manual for the Emergency Field Treatment of Casualties.

Manual for Organization, Training and Operation of First Aid Stations.

Manual for Existing Auxiliary and Improvised Hospitals.

Manual for California Civil Defense Blood Program.

Sanitation Manual for Disaster Use.

Manual for Organization and Operation of Mortuary Services.

Public Health Civil Defense and Disaster Plan.

This Committee has also helped in the development and accomplishment of the following:

A blood procurement program has been set up.

Over 180,000 blood vacuum bottles together with donor and recipient sets have been shipped and stored at various locations throughout the state.

Over 80 per cent of the equipment, drugs, dressings, antibiotics, dried plasma, splints, litters and blankets of the aid stations have been received, unitized, packed, shipped and stored in the various regions of the state.

Many hospitals throughout the state are organized for disaster according to plans in the Civil Defense Hospital Manual.

Developed a plan for rotation through state hospitals of stored antibiotics to reduce, as far as possible, loss through expiration date of potency.

Training units for Aid Stations have been procured and are being unitized and made ready for distribution to the various regions.

Development of plant protection program.

Development of public building protection program.

Making individual First Aid packs for the First Aid Workers.

Under training, the following has been accomplished:

Over 600,000 trained in First Aid (Red Cross).

Training courses are being given for blood bank technicians.

Over 5,000 nurses have had courses in disaster nursing, including Atomic Warfare.

Many CPX's (Command Post Exercises) have been held both on state and regional levels.

Dozens of meetings and courses throughout the state have been sponsored and attended.

This Committee during 1954 hopes to accomplish some of the following objectives:

Develop further procurement and supply program for active operations.

Continue procedure for inventory and inspection of stored medical supplies.

Develop further such procedures as emergency water supplies, sanitation procedures and food and milk inspections for general populace, mass care centers, and other assembly points of people during disaster.

Visit all operational areas and assist the local Civil Defense personnel in organizing and setting up their installations.

Develop further plans and procedures for handling atomic, biological and chemical warfare casualties.

Develop and change present plans to cope with changing trends.

Develop further plans for mutual aid between states.

Respectfully submitted,

JUSTIN J. STEIN, *Chairman*

PHYSICIANS' BENEVOLENCE COMMITTEE

To the President and the House of Delegates:

The Physicians' Benevolence Committee continued its usual program in 1953, contributing to the work of the Los Angeles County Physicians' Aid Association and meeting requests for aid from individual physicians or their families. Fortunately, at the close of the year, only two beneficiaries remained on the rolls, in addition to those being helped in Los Angeles County.

The Benevolence Fund gained $8,747.59 during the year. This increase came about through receipts of $16,247.59 and disbursements of $7,500; the net increase has been added to the fund, which at the year end totaled $59,808.97.

Receipts in 1953 included $1,140 interest on U. S. bonds and notes held in the fund, $3,415.34 from the Woman's Auxiliary, $11,604.25 from the California Medical Association and $88 contributed by several employees and friends of the late Dr. Frederick N. Scatena of Sacramento. Doctor Scatena was for some years secretary of the Board of Medical Examiners and the contributions following his death came from departmental employees and other friends.

At the end of 1953 the Benevolence Fund contained $44,000 in U. S. Treasury Bonds, $9,960.20 in cost value of U. S. Treasury 90-day bills, and $5,848.77 cash.

The profound thanks of the committee are extended to the Woman's Auxiliary for its continued campaign to aid this worthy cause. The Auxiliary works through its county chapters each year and manages to come up with a sizeable contribution by the time of the C.M.A. Annual Session. Thanks are also extended to the friends of Fred Scatena for their willing offerings in his memory.

Your chairman again calls attention to the fact that the reserves in the Benevolence Fund are still short of the $60,000 goal envisioned when this fund was established some fourteen years ago. At the same time, inflation has shrunk the value of the money so far accumulated, so that a higher goal must be set and reached. Considering the greatly increased membership of the C.M.A., there will undoubtedly be increased requirement for aid. The $60,000 goal should at least be doubled in order to provide sufficient reserves. Your chairman again respectfully suggests consideration of a higher per capita contribution by the Association than the $1 per member minimum specified in the By-Laws. This amount has started the Benevolence Fund off but greater efforts are needed if the ultimate effective goal is to be reached.

My thanks are extended to Doctors Elizabeth Mason Hohl and Ford P. Cady for their continued cooperation and prompt decisions on all matters coming before the committee.

Respectfully submitted,

AXCEL E. ANDERSON, *Chairman*

COMMITTEE ON POSTGRADUATE ACTIVITIES

To the President and the House of Delegates:

During the past year of 1953 your Postgraduate Activities Committee has continued the program already under way since 1950. During the year, Dr. Edward C. Rosenow, Jr., of Pasadena, has acted as Chairman of the Committee assisted by Dr. Herbert W. Jenkins of Sacramento, Dr. Lester S. Gale of Bakersfield, and Dr. Albert C. Daniels, ex-officio. Dr. C. A. Broaddus of Stockton has continued to serve as Director of Postgraduate Activities.

During the summer, Dr. Gale resigned from the Committee and Dr. John Edward Young of Fresno was appointed in his place. The Committee has met some eight times including a statewide, all-day conference in San Francisco with repre-

sentatives from the five medical schools and the five regions of the state.

We have conducted five two-day medical and surgical institutes, one each in the North Coast Counties, at Santa Rosa, Sacramento Valley Counties at Sacramento, San Joaquin Valley Counties at Fresno, West Coast Counties at Santa Barbara, and the Southern Counties at Laguna Beach.

Two Circuit Lecture Courses were carried out in September, October, and November. One in the northwest area for Ukiah, Eureka, Woodland, and Napa, with speakers from Stanford University School of Medicine, arranged by Dr. Lowell A. Rantz. The other circuit for the northern part of the Sacramento Valley, for Redding, Chico, Marysville, and Auburn, with speakers from the University of California arranged by Dr. Seymour M. Farber.

Twelve of the smaller and more remote counties were supplied with one speaker each from Los Angeles or San Francisco.

All of our programs have been open without fee to all interns, residents and nurses of recognized hospitals and to medical personnel of the armed forces.

Your Director has assisted in the arrangements for the programs of the Stockton Postgraduate Study Club, the Sunday All-Day Symposium at Visalia and the Two-Day Convention at Brawley.

The speakers for the Institutes, the Circuit Postgraduate Lectures, the County Societies and the programs for the several local conferences have been furnished mainly by the faculties of the five medical schools of California through the cooperation of Dr. Harold M. Walton for the College of Medical Evangelists; Dr. Gordon E. Goodhart of the University of Southern California; Dr. Thomas H. Sternberg of the University of California at Los Angeles; Dr. Seymour M. Farber of the University of California and Dr. Lowell A. Rantz of Stanford University. While we have been able to pay a minimum of $50.00 per lecture, plus the speakers' expenses, we still feel greatly indebted to the teaching departments of these medical schools. They have given one hundred per cent cooperation.

The California Academy of General Practice continues to give us hour-for-hour credit for attendance at all of our programs. to rank as credit toward the Number Two Classification of fifty hours in three years. This makes it possible for many doctors to earn their more difficult requirements without too much loss of time from their practice.

Several conferences with representatives from various areas of the state were held during the year. In March, an all-day conference of the Committee on Postgraduate Activities was held in San Francisco. The morning was spent with the representatives from the five medical schools. This group then joined some twenty-one representatives from the five state regions for dinner and further discussion of the needs and problems of Postgraduate Education for the practicing physicians.

At this meeting, the matter of the registration fee was considered and after thorough discussion, it was unanimously agreed to increase the annual fee from $5 to $10. Each registrant is still privileged to attend one or more, or all five of the Institutes for one annual registration fee.

On September 11 we met with Dr. Rantz and some of his faculty and representatives from the North Coast to plan their circuit program. The next day, September 12 we met with Dr. Seymour Farber and members of his faculty and the chairman from the Sacramento Valley Circuit to plan their lecture course.

In addition to these meetings, your Director has met at least once with the representatives from each medical school and the Regional Committee of each region to plan the program for the 1954 Institutes.

From the middle of May to the middle of July, your Director traveled through fourteen eastern, southern and middlewestern states and was in conference with men in each of them interested in postgraduate education. In New York City during the American Medical Association's Convention, he conferred with men from Massachusetts, Michigan, Minnesota, and Pennsylvania. A good deal of helpful information was collected from these conferences.

Your Committee feels that the program is growing in interest and should be continued. Therefore your Committee requests the House of Delegates that the Council of the California Medical Association be directed to continue the allocation of funds for the support of this committee in making possible postgraduate opportunities for its members.

FINANCIAL STATEMENT

Stockton Office Expense			
Salaries:			
Director		$ 6,000.00	
Secretary		2,100.00	
Office Rent		825.00	
Printing		632.62	
Stationery		266.90	
Postage		301.43	
Telephone Tolls		156.83	
Office Equipment		116.73	
			$10,399.51
Institutes, County Lectures, and Circuit Lectures			
Travel Expense	$ 709.41		
Meals	431.73		
Hotels	311.54		
Extra Help and Porter Service	134.00		
Lecture Room Rentals	292.50		
Committee Meetings	606.03		
State-Wide Conference	925.47		
Guest Expense	72.67		
County Speakers:			
Honoraria $150.00			
Travel Expense 76.09			
	226.09		
Institute Incidentals	136.90		
CMA Exhibit for Convention	136.16		
		3,982.50	
Speakers:			
Honoraria	$6,000.00		
Travel Expense	1,560.50		
		7,560.50	
			11,543.00
			21,942.51
Receipts from Institutes and Circuit Lectures			6,675.00
			$15,267.51

The California Medical Association can view with pride, its part in furnishing real service to its membership by making such high quality postgraduate opportunities available to them. The state program compares favorably with that of any other state in the Union.

Recommendation:

For the fiscal year from July 1, 1954 to July 1, 1955, we recommend a budget of $28,500 which is to include the expected income of $8,500.00 from fees for the two Circuit Lecture Courses and the five Regional Institutes.

Respectfully submitted,

EDWARD C. ROSENOW, JR., *Chairman*

COMMITTEE ON PUBLIC POLICY AND LEGISLATION

To the President and the House of Delegates:

The 1953 session of the California Legislature completed its labors on June 10, 1953. Your committee is happy to report that the legislative program as outlined by the House of Delegates and the Council was entirely successful. This was due to the cooperation of the membership in making legislative contacts when called upon and appearing before meetings of legislative committees.

Several bills sponsored by the California Medical Association were enacted into law. Details of these have been given to you through your bulletins and by other means. Chief in interest among these was a bill to authorize the Industrial Accident Commission to establish a minimum medical fee schedule.

Since the adjournment of the Legislature, interim committees of the Senate and Assembly have been investigating various matters relating to public health and your legislative committee has kept in close contact with and cooperated with these committees.

This year of 1954 is election year. The voters of California will select a United States Senator; 30 members of the House of Representatives of the United States Congress; a governor, lieutenant-governor and other state executives; 20 members of the State Senate and 80 members of the State Assembly. The primary election will be held in June.

Your legislative committee again urges every member of the California Medical Association to acquaint himself with the candidates and their views upon legislation affecting the public health.

Respectfully submitted,

DWIGHT H. MURRAY, *Chairman*

COMMITTEE ON PUBLIC RELATIONS

To the President and the House of Delegates:

> "I would like to reiterate: In the coming session all bills looking toward socializing your profession will be vetoed by this Governor."

The above statement, made by Governor Goodwin J. Knight in a speech before the House of Delegates on December 12, 1953, in San Francisco, might well be a summary of the results of the professional and public relations efforts of the members of the California Medical Association over the past several years.

While Governor Knight's appearance was arranged *by* the Public Relations Department, the words he uttered were his personal appraisal *of* the profession. He has a long record for honesty and integrity in his history of practicing attorney, judge and Lieutenant Governor. Had he not been convinced of the profession's determination to serve the public, it is unimaginable that he would have made such an unequivocal statement.

Assistance in the preparation of four public service, profession-sponsored television productions; personal reports to the members of the component County Societies; cooperation on an "on call" basis on any and all matters with the County Societies, the Public Health League and with the many committees of the Association; the production and distribution of on-the-spot tape recordings for the information of the profession; integration of the efforts of the California Physicians' Service to maintain the right of the patient of "freedom of choice" in his selection of a physician—all this along with our initial grass roots assignment of furthering "medical care on a 24-hour basis," making that care available "regardless of ability to pay" and encouraging the establishment and implementation of "public service committees," where differences between patient and doctor may be resolved, pictures the major activities of the department.

With the permission of the President and the members of the House of Delegates we would like the privilege of making a supplementary report from the floor at the 1954 meeting of the Association.

Respectfully submitted,

ED CLANCY, *Director*

COMMITTEE ON SCIENTIFIC WORK

To the President and the House of Delegates:

The Committee on Scientific Work met twice during the past year, and each time with the section officers.

Television is the innovation that caused the greatest amount of change in the planning of the Annual Session. The committee has attempted to work this program out so that it ties in with the scientific papers and is not in the form of a sideshow.

The Annual Session again will be four days in length, but this time Scientific Sessions will be held at the same time that the House of Delegates meets for the second time. There was considerable objection last year to having this day free of Scientific Sessions.

There will be a "meet the press" luncheon on Saturday, May 8, which will be under the direction of Mr. Robert Edwards, who has done such an outstanding piece of work each year. Mrs. Barbara Rooney and Mr. Robert L. Thomas have contributed greatly to the arrangements for the Annual Session, and without their help it would be impossible to put on as good a meeting.

Respectfully submitted,

ALBERT C. DANIELS, *Chairman*

REPORT OF THE EDITORIAL BOARD

To the President and the House of Delegates:

A meeting of the Editorial Board was held in Los Angeles last year at the time of the Annual Session of the California Medical Association. Members discussed ways to speed the process of reviewing manuscripts submitted for consideration, in order to let authors know sooner whether or not they are acceptable for publication.

Dr. Frank J. Crandall, Jr., who had served with distinction as one of the members of the Allergy Section of the board since the formation of that section in 1949, died last summer. With the approval of the Council Dr. Edmund L. Keeney of San Diego was appointed to the vacant post.

The members of the board are:

Chairman of the Board:
Dwight L. Wilbur, San Francisco

Executive Committee:
Albert J. Scholl, Los Angeles
H. J. Templeton, Oakland
Edgar Wayburn, San Francisco
Dwight L. Wilbur, San Francisco

Allergy:
Edmund L. Keeney, San Diego
Samuel H. Hurwitz, San Francisco

Anesthesiology:
William B. Neff, Redwood City
Charles F. McCuskey, Los Angeles

Dermatology and Syphilology:
Paul Foster, Los Angeles
H. J. Templeton, Oakland

Ear, Nose and Throat:
Lawrence K. Gundrum, Los Angeles
Lewis Morrison, San Francisco

Eye:
Frederick C. Cordes, San Francisco
A. R. Robbins, Los Angeles

General Practice:
James E. Reeves, San Diego
John G. Walsh, Sacramento

General Surgery:
Frederick L. Reichert, San Francisco
C. J. Baumgartner, Beverly Hills

Industrial Medicine and Surgery:
Rutherford T. Johnstone, Los Angeles
John E. Kirkpatrick, San Francisco

Internal Medicine:
Maurice Sokolow, San Francisco
O. C. Railsback, Woodland
Edgar Wayburn, San Francisco
John Martin Askey, Los Angeles
W. E. Macpherson, Los Angeles

Obstetrics and Gynecology:
Daniel G. Morton, Los Angeles
Donald G. Tollefson, Los Angeles

Orthopedic Surgery:
Frederick C. Bost, San Francisco
Hugh Jones, Los Angeles

Pathology and Bacteriology:
Alvin G. Foord, Pasadena
Alvin J. Cox, San Francisco

Pediatrics:
E. Earl Moody, Los Angeles
William G. Deamer, San Francisco

Pharmacology:
Hamilton H. Anderson, San Francisco
Clinton H. Thienes, Los Angeles

Plastic Surgery:
George W. Pierce, San Francisco
William S. Kiskadden, Los Angeles

Psychiatry and Neurology:
Karl M. Bowman, San Francisco
John B. Doyle, Los Angeles

Public Health:
George Uhl, Los Angeles
Charles E. Smith, Berkeley

Radiology:
R. R. Newell, San Francisco
John W. Crossan, Los Angeles

Thoracic Surgery:
John C. Jones, Los Angeles
H. Brodie Stephens, San Francisco

Urology:
Lyle Craig, Pasadena
Albert J. Scholl, Los Angeles

Respectfully submitted,

DWIGHT L. WILBUR, *Chairman*

ANNUAL REPORT OF THE CANCER COMMISSION

To the President and the House of Delegates:

During the past year the program of the Cancer Commission has been a continuation of the pattern of preceding years, but again with increasing emphasis on the investigation and reporting of some esoteric remedies allegedly of value in the treatment of cancer. The latter phase of the Cancer Commission's expanding program is aimed at the protection of the public as well as being inspired by our own interest in the possible value of any proposed agent, regardless of sponsorship. Although the accelerated tempo of this latter phase of the Commission's work has placed a heavy burden on its officers, there has been no slackening of the Commission's efforts in cancer control, particularly in the field of postgraduate education, in the continued promotion of the principle of cancer detection in the physician's office and in the increasingly successful program relating to consultative tumor boards in general hospitals throughout the state.

Unfortunately none of the proposed treatments for cancer investigated by the Commission have proved to be of any significant value. During 1953 official reports of the Commission's investigations of two of the most widely publicized of these remedies were published in CALIFORNIA MEDICINE. At the same time abstracts of the reports were released to the press with subsequent widespread newspaper publicity and frequently with editorial comment of a highly favorable nature. These two reports concerned agents usually referred to respectively as Laetrile and arginase. It is the opinion of the Commission that the publication of unfavorable findings in respect to these two agents has decreased greatly the use of both of these worthless remedies, and thus protected many patients from exploitation by physicians who, regardless of their intent, might have used the agents with increasing frequency.

As is customary in such situations the Commission has been subjected to a certain amount of abuse including the accusation of "medical politicians," the significance of the expression in this instance leaving little doubt as to the implication.

Also during 1953 the Los Angeles County Medical Association brought charges against one of its members who had used Laetrile in a considerable number of patients with cancer, as a result of which proceedings, the Council of the Association rendered a verdict in favor of expulsion of the accused. This verdict was later sustained on appeal to the Judicial Council of the California Medical Association. To the best of our knowledge, this is the first occasion on which a county medical society has undertaken to prefer such charges against a member on the basis of the use of a remedy for a specific disease proved to be without value after investigation by a commission of its own state medical association.

Other proposed agents for the treatment of cancer are under continuing investigation by the Commission, the most important of which is an agent which has been used with increasing financial success by a one-man show in Southern California, and concerning which a report of the Commission will be published within the next several months.

The Commission again acknowledges with gratitude the interest and support of the Council and the officers of the California Medical Association in this phase of its work. This year the investigations concerning the actual results of such treatment, as well as the necessary expenses of laboratory and animal surveys of these agents have amounted to a distinct financial contribution by the California Medical Association in the interests of the public welfare.

The general format which was developed by the Commission last year for the impartial investigation of proposed remedies for cancer has proved to be an entirely successful pattern, and the outline of this format is apparent in the reports rendered by the Commission and published in CALIFORNIA MEDICINE. Dwight Wilbur, Editor of CALIFORNIA MEDICINE, has been most helpful in providing prompt publication of reports.

Other continuing activities of the Cancer Commission during the past year may be summarized as follows:

1. During the calendar year various forms of organized programs in institutions concerned with cancer were investigated in 74 separate hospitals and clinics. Tumor boards complying with the minimum standards of the Cancer Commission were found to be operating in 61 hospitals, of which the Cancer Commission gave full approval to 57 and tentative approval to 4. In these tumor boards during the same calendar year were seen 9,934 new patients. The Commission is entirely convinced that very considerable benefits accrue to the patients seen by these tumor boards, as well as to the physicians who refer such patients, and that the consultative services so offered in a general hospital constitute a real contribution to cancer control. We have information concerning eight additional hospitals which are planning to organize new tumor boards.

2. During the past year cancer conferences for county medical societies were held in 20 separate areas, some of the meetings combining two adjacent county societies. Forty-two speakers were on the programs of the cancer conferences. The total membership of the county medical societies so provided with programs was 2,246 and attendance at the conference was 1,033, or a total of 46 per cent of membership.

3. The annual midwinter conference on tumor pathology was again held under the auspices of the Cancer Commission at the Fairmont Hotel in December as a joint session with the Southwestern Region of the College of American Pathologists and the California Society of Pathologists.

4. The annual preconvention conferences in tumor pathology and radiology will be held just prior to the Annual Session for 1954.

5. The Cancer Commission continues to have under its auspices the Tumor Tissue Registry located at the Los Angeles County Hospital, but operated as a statewide service to pathologists. The great value of this service to pathologists, and indirectly to all clinicians interested in cancer, has already been described, not only as a consulting service but as a repository of an enormous collection of study sets relating to all forms of neoplastic disease.

6. The Commission and the California Division of the American Cancer Society continue to provide physicians in general practice with subscriptions to *CA: A Bulletin of Cancer Progress*. Some 5,000 physicians are currently being provided with regular copies of this periodical.

7. The efforts of the Commission in promoting an effective program of cancer detection in physicians' offices is meeting with some continued success as well as, in some areas, some degree of opposition. It is apparent that the program can succeed only by stimulation of component county societies. Not having the appeal and news value of the so-called cancer prevention centers, this program can only continue to expand and to prove its worth by its successful prosecution in the individual physicians' office. The contention of the Commission that cancer detection belongs in the interested physicians' offices has just recently been underscored by a formal report of a one-year pilot plan successfully completed in Riverside County. The report of this plan and its success by the cooperation of the members of the Riverside County Medical Society will be reported in an early issue of CALIFORNIA MEDICINE.

Once more the Commission acknowledges the very successful cooperative efforts which it enjoys with the California Division of the American Cancer Society. The Commission also continues to maintain a very helpful liaison with the Bureau of Chronic Diseases of the Department of Public Health of California. Much of the success of the cancer conferences and of the Commission's program in relation to tumor boards is due to the efforts of the Commission's Medical Director, Franklyn C. Hill, M.D.

Respectfully submitted,

IAN MACDONALD, *Chairman*

ADVISORY PLANNING COMMITTEE

To the President and the House of Delegates:

The Advisory Planning Committee has continued this past year to schedule its meetings the day preceding the meetings of the C.M.A. Council. Any decisions of the committee are reported to the Council for consideration, in accordance with the terms of the resolution which originated this committee.

Again, as in the past, the committee has functioned primarily as a public relations discussion group. Here is where ideas may be discussed and tested out in advance of their inauguration. The members of the committee serve as an excellent liaison between the C.M.A. and the major county medical societies. Here it should be noted that this committee has no authority to act; its deliberations are strictly investigative and exploratory, with all decisions on plans and policies subject to report to and consideration by the Council.

Respectfully submitted,

JOHN HUNTON, *Chairman*

BLOOD BANK COMMISSION

To the President and the House of Delegates:

Sirs, we dedicate this report to all volunteer blood donors. Their blood donations, whether used on the Korean battle front or in your local hospitals, were life saving.

The year 1953 saw these results take place in our California Blood "Life Line."

1. *Blood* to Korea—515,504 units dispensed at an average cost of $5.42 per unit.

Blood for the civilian home front—$125,963 units likewise procured, tested, packaged and shipped for your patients at cost.

2. *Exhibits.* Three showings of our exhibits were made within our state and one in Chicago. We anticipate showing our new exhibit during the 1954 American Medical Association Convention in San Francisco.

3. *Travel.* Trips were made to New York, Chicago, Washington, Fort Worth and Victoria, B. C. Many routine and "emergency" meetings were held throughout the state.

4. *Clearing House.* This program has proved its worth and is being copied by other State Blood Bank groups. We are proud to have pioneered this vital administrative facet of blood banking. The proposed National Clearing House will probably include features of California's effort.

5. *California Medical Association Resolution on Blood Banking* was adopted by the American Medical Association. We believe this basic medical declaration will rank with the "Boston Agreement" in that it defines in forceful language the philosophy of Medicine in Blood Banking. These two proclamations should bring a unity and orderliness into the national program.

6. The *Armistice in Korea* brought about an abrupt cancellation of defense contracts between our eleven member banks and the American Red Cross (the Office of Defense Mobilization's official blood banking agency); however, our "Life Line" was able to absorb the depressive shock.

The 46 Red Cross Regional Blood Centers, however, continue to solicit donors for this program, namely: (a) blood for the service wounded, (b) blood for gamma globulin, and (c) blood for Civil Defense stockpiling of plasma and serum albumin, which in our personal opinion is an example of organizational partiality within the framework of the present National Blood Program.

Looking to the future, we are hoping to see an impartial Blood Bank Advisory Committee functioning at a national level to consider controversial blood bank problems.

7. *Publicity.* We need to disseminate more information about our blood bank program to the communities who are benefiting from the service. This will be done in 1954.

8. *The 1953 Blood Bank Meeting* was held in Riverside. Dr. Lewis Alesen and Dr. Malcolm Merrill were the guest speakers at the banquet. The 1954 meeting will be held in Sacramento, February 20 and 21. It is a great satisfaction to note the increasing attendance of local doctors at these meetings.

THE "TEN COMMANDMENTS" FOR BLOOD BANKING

1. Blood banks serve the people best if they are medically sponsored and operated, but community shared.

2. They should be non-profit and function on strict business principles. To accomplish this, banks *must* stress the cost service fee and donor replacement plan.

3. Banks must not deny transfusion therapy because of inability to (1) arrange for donor replacement or (2) pay the service fee.

4. Blood banks should be integrated with each other.

5. Banks must serve rural and urban areas impartially by speedy, continuous and dependable service.

6. They should utilize, when feasible, all blood bank facilities within their area providing they meet minimum technical standards.

7. The banks must stress community participation by enlisting, educating and training volunteer workers.

8. They should stimulate research in all phases of blood banking and solicit endowments for such essential scientific work.

9. They should encourage interstate reciprocity, fashion state blood bank systems under strict medical supervision and work for a realistic National Blood Program.

10. Blood banks should, in time of peace, prepare for disaster or war.

We pay humble and grateful thanks to our great legion of volunteer blood donors. Medicine salutes their courage and patriotism.

Respectfully submitted,

JOHN R. UPTON, *Chairman*

MEDICAL SERVICES COMMISSION

To the President and the House of Delegates:

The Medical Services Commission has held meetings with representatives of labor, group practice, Blue Cross and California Physicians' Service, and employer groups since our last annual report to the House of Delegates in May, 1953. The executive committee has held six meetings also.

The Medical Services Commission has:

1. Written and published a pamphlet with the assistance of the Public Relations Department of the C.M.A. entitled "Health Insurance Is *Good* Medicine." This pamphlet is presented in the public interest for distribution to patients by their personal physicians and offers some valuable information and guide posts for the selection of good prepaid medical plans.

2. Formulated a tentative set of principles under which prepaid medical plans should be presented to the public, published and sent them to all members of the C.M.A. for comment. A final set will soon be adopted by the Commission.

3. Been strong and consistent in its advocation of free choice of physician.

4. Studied and rewritten the C.M.A.-C.P.S. Study Committee report and made tape recordings and film strips condensing and explaining the report for use in all local medical societies.

5. With Council of the C.M.A. approval has requested that each county medical society establish a study committee in order that the general membership of the C.M.A. can obtain first-hand opinions and recommendations of labor, insurance carriers and employers' groups on prepaid medical care and also for the purpose of studying the rewritten study committee report.

6. Has appointed with Council approval a Fee Schedule Study Committee, Francis Cox, chairman, to formulate principles for establishing fee schedules. This committee is actively engaged in this study at present.

7. Reviewed the recommendations of the Dichter Report on C.P.S. and found that its recommendations are being carried out.

The Medical Services Commission has now gathered considerable data and experience on prepaid medical plans and is prepared to assist county medical societies in the study and application of this accumulated material.

Respectfully submitted,

HENRY GIBBONS, III, *Secretary*

COMMITTEE ON INDUSTRIAL HEALTH

To the President and the House of Delegates:

As a result of joint action by the California Medical Association and the California State Nurses' Association a statement, "Nursing Services in Industry: A Statement of Principle," was published in the September 1953 number of CALIFORNIA MEDICINE and in the *Bulletin* of the California State Nurses' Association.

Your Committee on Industrial Health wishes to express its appreciation of the cooperation it has received from the California State Nurses' Association, as well as for the assistance and support of your Council in the preparation and publication of this statement. We feel that this statement either in its present form or modified, if necessary, to meet conditions in the future as they change, will prove of value for long term understanding between the two associations.

At the time of this report your Committee has not outlined a project for 1954. This has not been for lack of problems which involve industrial health. On the contrary, from the plethora of such which exist, your Committee has not as yet selected, either by meeting or through correspondence, one or more of these problems on which to concentrate its activity. It is anticipated that a supplemental report outlining a projected activity will be submitted to the Council by the time of the annual meeting in May.

Respectfully submitted,

CHRISTOPHER LEGGO, *Chairman*

COMMITTEE ON RURAL HEALTH

To the President and the House of Delegates:

During 1953 this committee has sought to expand its activities in the field of rural health throughout the State of California. It has attempted to cement its relationship with various farm groups and others interested in the overall problems affecting health in rural areas as well as metropolitan centers having "fringe" districts sparsely populated. The committee has patterned itself along the lines of fostering and encouraging greater physician participation in community activities especially those related to health matters. As a result, the committee in general and several individual members in particular have found themselves closely allied to many groups of citizens interested in one form or another in health activities. This has led to the successful attainment in more than one instance of helping to guide these interested groups along the lines of accepted and recognized medical concepts rather than allowing these well-meaning citizens to pursue a course only to discover later the fallacy of their program. The results have been very gratifying.

A very close and mutually beneficial relationship exists between this committee and the Department of Public Health. Matters of considerable concern to the department have been seriously considered by the committee and it is hoped that its deliberations have been of assistance to California's outstanding Public Health Department. Our committee owes a vote of thanks to the director and his entire staff for their untiring efforts in behalf of the citizenry and physicians of California. Our committee pledges its continued assistance in attempting to make their task a lighter one.

To the farm groups in general and the California Farm Bureau Federation in particular the committee wishes to express its gratitude for the splendid cooperation existing between the residents in rural areas and the physicians. The chairman as well as representatives from the C.M.A. Department of Public Relations were privileged to be in-

cluded on the program at the annual meeting of the Farm Bureau. A most cordial friendship exists resulting in a mutual understanding of problems. The growers of the state indeed have theirs and they in turn are cognizant of ours as practicing physicians.

The committee can report continued success in the field of migrant medical service. This is particularly true on the so-called "westside" of the San Joaquin Valley. The physicians in this area together with health department personnel and the farmer have worked out a very satisfactory solution to the problems affecting health and medical service. Of added interest is the fact that migrant workers are becoming less migrant and are therefore assuming their rightful position within the community thus lessening not only the problems affecting health and medical care but housing, sanitation, food, clothing and community organization as well. There are undoubtedly other areas within the state where issues involving this segment of our population are still present but it is hoped that through the activities of our committee and related groups these situations will be resolved.

The California Rural Health Council which this committee was privileged to help initiate is continuing to grow in scope and influence. Within this group in addition to the practicing physicians are representatives from the Health Department, farm groups, parents and teachers, and Agricultural Extension Service. The Council meets every two months throughout the year to consider problems of mutual concern.

By action of the Council of the C.M.A. the Committee on Rural Health has been assigned the task of assisting in the physician placement program of the state. The committee feels there is much to be done in this direction and has to date served to clarify some misconceptions concerning the distribution of physician coverage. In considering the problem, a subcommittee determined that according to currently used yardsticks there are relatively few areas within the state that might be considered inadequately served by physicians. It further recommends that liaison be established by the C.M.A. with the California Academy of General Practice to establish how large a segment of population is necessary to provide sufficient patients to keep a general practitioner busy and utilize his services fully. When this figure is known, the C.M.A. could justifiably oppose the encouragement of a physician to practice in a community whose size is insufficient to fully utilize his medical training and skill. The subcommittee further recommended continued study of methods to evaluate physician distribution so that the needs of people for medical care could be met at all times. By further direction of the Council the committee is considering means by which recent graduates in medicine cannot only be attracted to rural areas but be encouraged to remain by making good use of their talent, time and training.

The chairman has been privileged to sit as a member of the Governor's Committee on Children and Youth. Although many of the problems considered by this committee are of a nonmedical nature, it is interesting to note that by the same token many of the issues considered have medical or semi-medical components wherein physician representation and counsel serve a most useful purpose. Physician (of which there are two in number) influence on this committee has done much to guide the program for the Governor's Conference on Delinquency to be held in Sacramento February 25 and 26. It is to be hoped that physicians from various parts of the state will find time to attend this conference and stand ready to give of their time and skill in the solution of this matter of great social concern.

It is the desire and hope of this committee that local medical societies will see fit to perpetuate their committees on rural health whereby they, in turn, can contribute to continued welfare of their communities. By injecting themselves into matters other than the strict application of medical service physicians can do much toward leading the thinking of their community in the right direction. It has been the experience of this committee that the citizenry as a whole welcome such participation.

The committee wishes to thank all the officers and Council as well as the administrative staff for its continued support of our activities.

Respectfully submitted,

HENRY A. RANDEL, *Chairman*

ANNUAL COUNTY MEDICAL SOCIETY REPORTS

FIRST DISTRICT

San Diego County.

Francis E. West, San Diego, *Councilor.*

San Diego County Medical Society

Progress made by the Society in 1953 was due to plans carried out by various committees. New committees were formed to deal with matters that had presented themselves for the first time. Chief among these were the TV and Building Program committees.

The TV committee has successfully presented a half-hour weekly TV panel program on Channel 8. This accomplishment started in the summer of 1953 and will continue into 1954. The "Your Doctor Answers" programs have attracted wide-spread favorable comment and the society is fortunate in having the opportunity of reaching the public through this medium.

Another 1953 development which attracted the attention of all members was the recommendation of the building committee that property be purchased for the construction of a building to house the medical society and its related activities. The society did purchase property and the committee is busy formulating plans for the employment of an architect and contractor. It is expected that the society will move into the new quarters the latter part of 1954.

The membership committee inaugurated a series of indoctrination courses for applicants. Six courses were presented during the year and each applicant was required to attend four of the six as a prerequisite to membership in the society. The courses have been well received and it is believed that a better informed membership will assist the society in meeting the problems that will arise in the year ahead.

The program committee placed emphasis on medico-economic problems facing medicine and the success of the choice was evident by the number of doctors who attended the monthly dinner meetings. Detail men were encouraged to present their products at the meetings, and each meeting took on the appearance of a small medical convention with all the benefits which come from a convention. Informality was stressed at the meetings and the air of good fellowship created did much to assure the success of the "new type" program.

The public relations committee was active in printing pamphlets for distribution to patients, conducting an A.M.A. exhibit at the County Fair, publicizing the society's TV show and promoting the C.M.A.'s public relations program.

The postgraduate study committee arranged for additional courses to be presented in San Diego. The medical schools of both UCLA and USC presented a series of courses which had been designed to meet the needs of local physicians.

The society was honored in again hosting the general practitioners at their state convention in Coronado. The maxillofacial surgeons also chose Coronado for their national convention. Both conventions were attended by many of our members.

W. H. Geistweit, Jr., *Secretary*

SECOND DISTRICT

Imperial, Inyo, Mono, Orange, Riverside and San Bernardino Counties.

Omer W. Wheeler, Riverside, *Councilor.*

Imperial County Medical Society

In order to establish better public relations with the people of Imperial County the Medical Society through its public service committee placed an announcement in all the local newspapers requesting anyone who had any unsolved problems or who had failed to arrive at a satisfactory agreement with their personal physician on any medical problem to write to the Public Service Committee and report the same to the committee. The cost of these announcements was provided for by the public relations department of the California Medical Association.

The medical society succeeded in getting the County Board of Supervisors to appoint three members of the County Medical Society to a seven-member hospital commission whose function is to advise the Board of Supervisors on matters pertaining to the management, conduct and operation of the Imperial County Hospital.

The society holds its regular meetings the second Tuesday of each month at 8 p.m. at the Pioneers Memorial Hospital. The scientific program is followed by a business meeting.

Ernest Brock, *Secretary*

Orange County Medical Association

The society's program of effective committee organization, coordination of projects and emphasis on internal relations as well as public relations, has continued to be our basic objective for 1953. An unprecedented roster of committees was formed and resulted in a record-breaking number of committee meetings, a total in excess of 90, with over 1000 man-hours being spent in committee work.

Our biggest project of the year centered around the Third National Boy Scout Jamboree which was held at Corona del Mar during the first two weeks of July. The officials of the Boy Scouts of America requested that members of our association perform recheck physical examinations on 50,000 boy scouts within 24 hours after their arrival at the camp site. Duly appointed committees immediately set to work and every doctor physically able to do so volunteered to donate a minimum of five hours to giving the examinations. Of 201 doctors scheduled at five-hour intervals from 8 a.m. to 10 p.m. daily for four days, 200 doctors showed up, on time, exactly as scheduled. Such unified action on the part of a county medical association had been unheard of, according to top officials of the Boy Scouts. Television and newspaper reports all told of the unprecedented efforts of the members of our association. The lack of any contagious outbreak and the least incidence of illness of any Jamboree was attributed in great part to the fine work of the Orange County physicians.

Public Relations came in for its share of work on the part of all members and especially the committee members. A survey of the number of hours of free medical care donated by members was conducted by the P. R. Committee. Final results, which are now being tabulated, will be used for various types of publicity so that the public will be better informed as to the service doctors render in caring for the indigent and that, under a government program, this free medical care would be paid for by the taxpayers. The highlight for the P.R. Committee was their joint efforts with the program committee in putting on a Public Relations Clinic for all doctors and their office medical assistants. The evening saw over 200 people in attendance, with the program attempting to promote a better understanding, on the part of medical assistants, of the many problems faced by the doctor in the care of his patients, his records, monthly billings, and all other ramifications of office reception and assistance. This is the first time such a meeting has been conducted by any California association and appears to be headed for an annual affair.

The Program Committee again furnished the association with outstanding speakers, with the climax being a combined meeting of the medical doctors and the Orange County Bar Association. Many mutual problems were discussed and as a result a much closer and practical liaison between the two groups has already been established.

Blood supply, while it is a continuing problem, did receive a vast amount of study from the Blood Committee. Such factors as only one delivery a week from the Los Angeles Regional Bank and only a 17 per cent replacement on the part of county citizens were among the urgent matters considered.

Our very active Woman's Auxiliary continued its many projects of aid to the profession and service to the public. Recruitment of nurses through the awarding of scholarships and other promotional ideas was highly successful. Businessmen and service clubs were induced to take an interest in the nurse shortage and various groups donated even scholarships. The Auxiliary also furnished some 90 schools and Parent-Teacher Associations with subscriptions to *Today's Health* magazine, thus furnishing them with continuous modern and factual health information.

The medical society and the citizens of Orange County jointly launched a fund-raising campaign for the new proposed $1,500,000 North Orange County St. Jude Hospital. Over one-third of the goal has already been raised and plans are now proceeding at a rapid pace.

Our membership has continued with a steady growth, 35 new members having been accepted this past year, the largest number in history, bringing our total roster to 259. Thus, we are keeping pace with the increased population which has made Orange County the fastest-growing area, percentage-wise, in Southern California.

Chad M. Harwood, *Secretary*

Riverside County Medical Association

The annual golf tournament of the Riverside County Medical Association was held December 9, 1953, at the Victoria Club in Riverside. This was a combined tournament with the Riverside County Pharmaceutical Association. Wives were invited to the dinner dance that followed the tournament.

Scientific programs are presented at the regular monthly meetings of the association held the second Monday of each month.

The *RCMA Bulletin* is published monthly and contains pertinent news and information for the medical profession.

JOHN S. O'TOOLE, *Secretary*

San Bernardino County Medical Society

The San Bernardino County Medical Society has finished another year under the able direction of our retiring president, Dr. C. Norman Abbott, of Ontario.

Our public relations program has been highly successful. This has been mainly due to the belief in the principle that the basis of good public relations is the direct contact between the doctor and his patients. Our members have been urged to join our local Chambers of Commerce, and participate in all civic affairs. That this has been successful is quite evident in the steady improvement of our public relations.

This year our society has bought newspaper space in all main newspapers in our county for season's greetings to the general public. This has brought considerable favorable comment, and has improved general goodwill.

Our committees have been active and there has been a wide participation by our members in the affairs of our county society.

The financial condition of our society has likewise improved, to the extent and because of the steadily mounting surplus, that our members have voted that the dues be reduced to $5.00 per year.

CARL M. HADLEY, *Secretary-Treasurer*

THIRD AND FOURTH DISTRICTS

Los Angeles County.

H. Clifford Loos, Los Angeles, *Councilor,* Third District.
J. Philip Sampson, Santa Monica, *Councilor,* Fourth District.

Los Angeles County Medical Association

Nineteen fifty-three proved to be one of the most active in the 82-year history of the Los Angeles County Medical Association, which now numbers 5500 members. Many new steps were inaugurated, commencing with the adoption of a resolution stating that physician participation in closed-panel, lay-controlled, corporate-type medical plans is not in the public interest and is incompatible with the Code of Ethics of the American Medical Association. The Association also adopted amendments to the by-laws stating that membership in the Communist party or any party advocating the overthrow of the government by force or violence is incompatible with membership. Applicants for membership are now required to sign the loyalty oath prescribed for officers and employees of the Association.

In September 1953 our immediate past-president, Dr. Paul D. Foster, exploded a long smoldering community resentment against our increasing smog problem by writing an open letter to the Mayor, pointing out the health hazard provoked by the situation. Probably no action by medicine in this area has ever brought more good will for our Association. The campaign has been actively espoused by the press, radio and television. Thousands of columns of news on the subject, commendatory to the profession for taking such a forthright stand in the interests of the community, have appeared locally and throughout the country.

In cooperation with the California Medical Association we have produced a weekly television show entitled "Ask the Doctor." Public acceptance and appreciation of our effort has made this effort worthwhile.

Our Speakers' Bureau has been active, and in the spring of 1953 a series of discussions on health topics was held before classes of the adult education division of the city schools.

The Los Angeles County Medical Association has enjoyed excellent press relations throughout the past year; the amount of space devoted to medicine and Association activities was most encouraging. We count this assistance one of our most valuable public relations weapons.

Nineteen fifty-three inaugurated changes in administration policies recommended by a firm of consultants specializing in advising on efficient management procedures. These changes not only resulted in smoother and speedier operations for Association affairs, but also in a substantial reduction of operating costs.

In the closing weeks of the year the Association approved of expanding the administrative and meeting facilities of our headquarters, also provided for added library space. We hope to have the work completed in the latter part of 1954.

The past year witnessed fruition of the efforts of a committee composed of representatives of the Los Angeles Bar Association and the Los Angeles County Medical Association. The complaint has frequently been heard from the public and atorneys that it is impossible for a citizen to obtain redress from a physician for alleged damages regardless of the merits of the case, because other physicians refuse to testify. The Association has approved a list of specialists who have signified their willingness to consult with any plaintiff attorney and advise whether there is any evidence that a case has not been handled with the standard of care consistent with this area.

The Association does not believe it should operate a collection agency for many reasons, however it is generally recognized that some form of control should be exercised in this field. Our Economics Committee solved this dilemma by proposing that recognized agencies be allowed to use the seal of approval of the Association after they have agreed to abide by rules designed to protect both doctor and patient. This plan has met with good acceptance; we believe it most worthwhile.

Regular breakfast meetings are held for the officers of the fifteen branches of the Association each month, at which time they are brought up to date on developments of interest to medicine here. This has proved to be an excellent way of keeping everyone informed.

The Los Angeles County Medical Association is fortunate to have had the benefit of 62 active committees throughout the year, the work of the Council would have been most difficult without this assistance. We also wish to express our appreciation of the invaluable assistance of the C.M.A. public relations representatives, Mr. Ed Clancy and Mr. Jerry Pettis, during the year. They have indeed rendered aid to us at every step of the road.

EWING L. TURNER, *Secretary-Treasurer*

FIFTH DISTRICT

San Luis Obispo, Santa Barbara and Ventura Counties.

Robert O. Pearman, San Luis Obispo, *Councilor.*

Santa Barbara County Medical Society

The year 1953 of the Santa Barbara County Medical Society under the guidance of Dr. Walter G. Graham, president, has proven to be a satisfactory, interesting and progressive one. The average membership of this society remains approximately the same with the current membership numbering 176. Of this number 157 physicians are full active members, 4 associate, 4 postgraduate, 3 are in the military service, 4 are on sick leave, 2 are life members and the remaining 5 are on a retired status. With 4 new applicants to be voted into full membership in January the total membership at the time of this publication will be 180.

There have been 23 committees designated. They have facilitated the activities of the society most advantageously.

The scientific portion of the regular meetings of the Santa Barbara County Medical Society have been exceedingly well planned and have had a divergence of topics of importance and interest. We have found that a dinner meeting which is most easily accommodated at our University Club, has been acknowledged with a larger attendance than those meetings which had been held in the auditorium used for the County Medical Society meetings. The social hour preceding the scientific portion of the meeting facilitates a better acquaintance of the members and an opportunity for the newer members to make acquaintances in

the Society. The program committee has had an opportunity to arrange for several of the meetings of the coming year.

There have been, during the course of the year, several new projects which have been undertaken with the assistance and the backing of the Santa Barbara County Medical Society. One of the most important of these has been the establishment of a training class in the junior college for medical secretaries. The Society has through its committee had an active participation in the planning of a 64-hour review course as a part of a new vocational nurses' training program which is likewise sponsored through the junior college.

While the doctors appointed to the situation have had little opportunity to function to date, we feel that the suggestion of the California Medical Association in the appointment of two members of our Society as representatives to assist physicians who are interested in locating and establishing themselves in Santa Barbara has been a constructive move.

The County Medical Society has participated in the program of advertisement in the county newspapers. From the reaction of the public expected in such fashion to come to our attention through the office of the County Medical Society, it is our feeling that the information disclosed and projected in these advertisements has been beneficial in presenting the idealisms and interests of the County Medical Society in the problems of the public.

A postgraduate seminar in February of 1953 was devoted to calcium metabolism and was conducted by Dr. Edward C. Raffenstein. A survey of members attending has been most gratifying in the interest demonstrated in their criticisms of the program. In March of 1954 a two-day postgraduate program has been planned.

The Tri-Counties Blood Bank has during the course of the year moved into a handsome and efficiently arranged new building. The organization continues to serve most efficiently the Tri-Counties area.

The Medical Library of the Santa Barbara County Medical Society continues to maintain service five days a week from 9:00 a.m. to 4:00 p.m. and in the evenings from 6:00 p.m. to 9.00 p.m. During the last year the library had an attendance of 9,492 patrons, 431 visitors, a circulation of 2,958 books, and 2,324 periodicals; books borrowed from out-of-town libraries 649 and the library has had the good fortune of having 92 new volumes purchased during the course of the year.

The Women's Auxiliary of the Santa Barbara County Medical Society has functioned most efficiently and effectively during the past year.

We look forward to a successful year under the direction of our new president, Laurence E. Heiges, Jr.; our president-elect, J. Gary Campbell; the secretary, Arthur E. Wentz; the treasurer, Francis B. Zener. The Council members for the coming year will be Walter C. Graham, Harry E. Henderson, Richard McGovney, David L. Reeves, and newly elected to the group is Albert S. Missal.

ARTHUR E. WENTZ, *Secretary*

Ventura County Medical Society

Regular monthly meetings of the Ventura County Medical Society were held the second Tuesday of each month. At the annual meeting in December, held at the Saticoy Country Club, the following men were elected to serve in 1954: James H. Nelson, Ojai, president; R. F. Robertson, Santa Paula, president-elect; Franklin K. Helbling, Ventura, secretary, and Charles M. Hair, Saticoy, treasurer.

Dr. James M. Hunter as president of the Society during 1953 was instrumental in guiding the organization to one of its most successful years.

The Public Relations Committee, headed by Dr. Noble Powell, Jr., continued its excellent work featured by the installation of the emergency call plan, formation of a speaker's bureau, the annual press-radio dinner, and revision of the information brochure.

Under the chairmanship of Dr. James W. Moore the Constitution Committee submitted a revision of the Constitution and By-Laws, which was accepted by the Society.

Dr. Joseph F. Maguire as chairman of the Fee Schedule Committee has worked tirelessly in an effort to formulate a countywide average or usual fee schedule.

Our Program Chairman, Dr. Harry R. Henderson, succeeded in providing interesting and educational scientific programs.

The most noteworthy and pleasurable occurrence of the year, however, was the election of our Arlo A. Morrison as President-elect of the C.M.A. We, as a Society, feel highly honored and gratified in his election, and are confident that Morrie will represent organized medicine in California and the C.M.A. in the highly efficient manner in which he has always conducted himself.

FRANKLIN K. HELBLING, *Secretary*

SIXTH DISTRICT

Calaveras, Fresno, Kern, Kings, Madera, Mariposa, Merced, San Joaquin, Stanislaus, Tulare and Tuolumne Counties.

Neil J. Dau, Fresno, *Councilor.*

Fresno County Medical Society

During the past year the Fresno County Medical Society has followed a course directed to the best doctor-community relations. A very brief resume of what has been done follows.

A Code of Cooperation, developed by representatives of the press, radio, TV, hospitals and the medical profession of Fresno County was officially adopted. It is felt that the adoption of this code will prove one of the most effective media for establishing mutual understanding among the three professions. The second annual press-radio dinner was held in June, and attendance was even greater than that of last year's affair. These get-togethers are strictly informal and provide an excellent opportunity for everyone to air his gripes and present his side of controversial issues.

Our Professional Relations Committee continues to serve as a judicial body in indicating to the profession and the public various standards of medical practices and procedures in the community. The committee's existence and purpose was again brought to the attention of the public by means of a public service announcement which appeared in all county newspapers.

A special malpractice study committee was appointed to reevaluate the Society's Group Malpractice Program. Points to be determined by this committee were: the initial causes of malpractice suits; does the FCMS have an adequate malpractice program; is legal counsel satisfactory; does our public relations program meet the needs of the profession in this county. The committee rendered a detailed report, including recommendations to the Board of Governors, and it is felt that these recommendations which were approved and adopted will enhance considerably the Society's malpractice prevention program.

One of the best demonstrations of service to the public during the year was the innovation of a new television series. This program reaches the public through three media: the newspaper and radio simulcast with TV. Fresno is the only spot in the state where this is being done, and a maximum number of people are reached by this combination.

The Society's office has continued to serve the public in securing doctors in emergencies, arranging for referral of patients to doctors, disseminating data concerning health insurance, medical schools, hospitals, medical society policy, public health matters, etc.

Late in the year the membership was surveyed to determine those who would be willing to serve on the Speakers' Bureau of the Society. To date, the response has been overwhelming, and as soon as all replies have been correlated, a letter and brochure will be distributed to all local organizations, associations, service clubs, etc., explaining the purpose of the Speakers' Bureau and listing the subjects available for discussion.

Other projects included the beginning of a training course for medical personnel in cooperation with the Fresno Adult Education Department; the careful handling of scarce gamma globulin; the integration and coordination of the Society's Civil Defense Committee with the disaster unit of the American Red Cross and the health and medical section of the Fresno City operational area; active participation in the operation of the West Side Clinics for the indigent population of the West side.

Monthly membership meetings have been good and attendance has maintained a favorable average. Six meetings were devoted to scientific programs, three to business and one our annual ladies' night social affair.

An optional supplement of $200 per month at a prorated premium comparable to our current rate schedule was made available to the membership by the underwriters of our group health and accident program.

Total membership at the present time is 271, of which 232 are active members. There are 18 applications for active membership and four for associate membership which are being processed. This makes a total of 41 new practicing physicians in Fresno County for the year 1953. Six members entered military service and five returned. This brings to a total of nine those now on active military duty.

J. Cooper Collins, *Secretary*

Kern County Medical Society

The year 1953 was indeed an eventful year for the members of the Kern County Medical Society. Under the capable guidance of J. E. Vaughan, M.D., the Society accomplishments were many. Many projects started during 1953 will be continuous and will ultimately contribute greatly to the health and welfare of the county.

Rated as the number one project for the Society for the year was the fund-raising campaign, to provide the local matching funds necessary to obtain Hill-Burton Act funds. The motivating force behind every member was the burning desire and solemn duty of each doctor to provide the best medical care possible for the citizens of their community. The task before them was clear. They see a straight course to accomplish the only real and permanent solution to this very serious problem.

During the earthquakes of 1952, the hospital facilities of Kern County were reduced to a dangerously low level. Having obtained the tentative assurance of Hill-Burton funds, based on need, the doctors rolled up their sleeves and dug in. The results were amazing. In only six short weeks, and without the aid of professional fund raisers, over $1,900,000 was pledged to a goal of $2,800,000. This sizable amount of cash and pledges was raised at a cost of less than $3,000, which included all printing and miscellaneous expenses. All advertising, radio time and publicity was donated.

At the present time, working drawings are being made for a new 106-bed Greater Bakersfield Memorial Hospital and the reconstruction of quake-damaged Mercy Hospital. Both hospitals will be ready to serve the community early in 1956.

In cooperation with the Public Relations Department of the California Medical Association, announcements were run in all newspapers in Kern County announcing the function of the Public Service Committee and the availability of a doctor for any emergency.

During the year, negotiations were completed between the Houchin Community Blood Bank and the County of Kern, designating the Houchin Community Blood Bank as the sole agency for the procurement of all blood for use at the Kern General Hospital. This has effected a saving for the taxpayers of Kern County and has fully established the Houchin Community Blood Bank as a truly community project.

For the fourth year the Society has participated in the Hall of Health, a health display at the Kern County Fair. The participating agencies were: Council for Community Planning, California State Nurses Association, Kern County Branch Chapter American Cancer Society, Kern County Branch Chapter Multiple Sclerosis Society, Kern County Department of Public Health, Kern County Heart Association, Kern County Pharmaceutical Association, Kern County Dental Society, and Kern County Tuberculosis and Health Association, Inc. By the distribution of dial ad caps to be placed on telephones, the Society has further promoted emergency medical care. Other emergency numbers were also listed. Also, members of the Medical Society donated 120 hours of service to provide the Fair Association with an attending physician.

The Kern County Medical Society is happy to announce that starting January, 1954, it will print a monthly bulletin, containing 28 pages. We are looking forward to a successful year in the new endeavor.

The Society holds regular monthly meetings the third Tuesday of each month. At these meetings the doctors are given an opportunity to hear outstanding speakers, not only in the field of medicine, but on any issue which directly or indirectly affects the health and/or welfare of the community.

R. W. Burnett, *Secretary-Treasurer*

Kings County Medical Society

The annual meeting of the Kings County Medical Society was held November 12, 1953, at the Cotton Club, Corcoran, California.

As is usual at this annual meeting, the officers of the California Medical Association were present.

The speaker of the evening was Dr. John Green, President of the California Medical Association, who was introduced to those present by Henry Randel, M.D., former vice-speaker of the House of Delegates. Dr. Randel appeared in the absence of Neil Dau, M.D., Councilor for this District. Accompanying these officers was Mr. Jerry Pettis of the Public Relations Department of California Medical Association.

The Society meets the second Thursday of each month for a dinner meeting followed by a short business session and a scientific program.

Willard S. Bridwell, *Secretary*

Madera County Medical Society

The Madera County Medical Society has completed a most successful year, outstanding for its excellent scientific programs.

Our members have participated as an advisory body to the Madera County Hospital. Under the aegis of our President K. W. Butler, we have forged ahead in this our second year as a society.

The newly elected officers for 1954 are Omar U. Need, president; Gilbert G. Daggett, vice-president; and Gordon C. Hall, secretary-treasurer.

Herbert Weinberger, *Secretary-Treasurer*

Merced County Medical Society

The preconvention report of the Merced County Medical Society, District 6, is submitted herewith.

Eight new members joined the Society in 1953. They are Robert C. Harner, Richard P. Holm, Norman Nichols, Kalfus W. Patterson, George W. Porter, Robert L. Ruble, Norman Switzer, and Addison R. Udall. Two members were lost by transfer. They are Norman Switzer and William Wheaton. Our present membership totals 46 of which 44 are active, one is on military leave of absence, and one is a life member.

Officers for 1954 are William Fountain president; Harry Maytum, president-elect, and vice-president; John East, secretary-treasurer; delegates to the C.M.A. Shelby Hicks and G. B. Pimentel; alternates E. A. Jackson and Hugh Haas; board of governors E. A. Jackson, Roy T. Peck, C. C. FitzGibbon, Earl Koepke, Max Brannan, and J. J. Wolohan.

Regular meetings are held at the Mercy Hospital, Merced, every fourth Thursday at 7:15 p.m.

John East, *Secretary-Treasurer*

San Joaquin County Medical Society

This past year has been one marked by consolidation and achievement under the able leadership of Dr. Emile J. Gough, who has served as president of the San Joaquin County Medical Society.

A Bureau of Medical Economics has been established and went into operation on January 27, 1953. This organization was set up as a non-profit corporation under the direction of the Society. Mr. Bud Engdahl, a licensed collector, was associated with the organization. The offices are in association with the County Medical Society Office. As it nears the end of its first year of operation, it is evident that the Bureau will be successful. The members of the Society have been cooperative in submitting accounts

for collection and the Bureau in turn has done an excellent job of collecting. It is felt that the Bureau has been a great deal more successful in retaining patient good-will than the usual commercial collection facilities.

A great deal of study has been devoted during the past year to the problem of improved medical care in the community. It has been the aim of the Society to initiate a program that will assure medical care for everyone regardless of ability to pay. Representatives of our Medical Services Committee of which Dr. Donald C. Harrington is chairman have considered plans now in operation all over the country. Representatives from the society have also met with society representatives from the nine Bay Area Counties for a study of this problem. This Society has been particularly anxious to work out a solution for the medical care of the various groups covered by prepaid medical care plans. It is the aim of our membership to provide medical care without additional charge in the case of those groups in which it can be shown that the terms of their contract represent their full ability to pay. Up to the present time, a definite policy in this respect has not been established. However, a non-profit Foundation for Medical Care is now in the process of incorporation. It is hoped that this foundation will be able to develop a program that will prove beneficial both to the insured groups and to our membership.

The Postgraduate Study Group under the direction of Dr. L. P. Armanino presented its annual course of eight lectures. Dr. James Powell served as editor of the *Bulletin* which is now in its second successful year of operation. At the regular Society meetings held during the year there were five scientific meetings and five meetings of general interest.

Dr. Frederick William Fergusson of Lodi died on Saturday, September 5, 1953. Dr. Wilfred Conklin Curphey of Stockton died on November 21, 1953.

During 1953 the Society had a net gain of two members.

FRANK A. MCGUIRE, *Secretary*

Tulare County Medical Society

The Tulare County Medical Society has completed another successful year under the able leadership of President R. D. Karstaedt, M.D., of Porterville.

Thirteen new members joined the society during 1953 bringing the total membership to 95 active and three retired. Dr. A. C. Twinem of Visalia entered military service during this year and Dr. Raymond Manchester was granted a leave of absence for postgraduate work. The death of Dr. S. S. Ginsburg in May of this year marked a loss to the medical society and to the community of one of its esteemed and oldest members.

The Society was fortunate in having some very outstanding programs during the year. Dr. J. J. McNearney served as program chairman. The officers of the California Medical Association were guests of the society at the regular January meeting when Dr. Lewis A. Alesen, president of the C.M.A., spoke on the threat of compulsory health insurance and socialized medicine. Dr. William Adams of Fresno and Dr. Gordon Garnett of Los Angeles gave an excellent program on coronary heart disease at the March meeting. Dr. Clifford Sweet of Oakland honored the Society with a fine discussion of "Pediatric Problems" at the April meeting.

The Tulare County Bar Association and the Tulare County Medical Society held their joint meeting again this year in May at the Hotel Johnson in Visalia. The dinner was provided by the Medical Society, and the lawyers provided the guest speaker. Mr. Raoul Magana of Los Angeles gave a most instructive and entertaining talk on "Jury Trials in Medico-Legal Cases."

Dr. Orville Grimes, Dr. L. D. Howard, Jr., and Dr. Peter Forsham, of San Francisco, Dr. C. B. Courville of Los Angeles, and Dr. George Lavers of Tulare, one of our society's members, provided very excellent programs during the year.

The third annual postgraduate meeting of the Tulare County Medical Society was held at the Hotel Johnson, Visalia, on Sunday, April 19, 1953. An outstanding program was presented by speakers from the faculty of Stanford University School of Medicine. The meeting was well attended and was again self-supporting from the individual tuition fee of five dollars. Dr. George Amromin of Tulare and Dr. Victor Badertscher of Dinuba arranged the meeting.

Under the direction of the Public Relations Department of the C.M.A., this Society sponsored the radio programs "Help Yourself to Health" over station KTIB, "Doctors Make History," over KCOK, and "Interlude" over KONG.

Not having a publication of our own, we have been allotted space in the Fresno County Medical *Bulletin* for Tulare County medical news. Dr. Patricia Tudbury has very ably edited our section with the assistance of Dr. George Amromin. The space has been devoted to general county medical news, hospital staff news, and to a scientific section to which several of our members have contributed original papers and clinico-pathological conference reports.

Officers elected at the December meeting for the year 1954 are: Dr. Vincent M. Dungan, president; Dr. Gordon Jackson, vice-president; Dr. J. J. McNearney, secretary. Dr. J. E. Feldmayer was elected to the Board of Censors to replace Dr. W. B. Parkinson whose term expired this year.

Delegates to the C.M.A. House of Delegates are Dr. J. E. Feldmayer and Dr. Vincent M. Dungan. Alternates are Dr. C. H. Johnson and Dr. Gordon Jackson.

VINCENT M. DUNGAN, *Secretary-Treasurer*

SEVENTH DISTRICT

Monterey, San Benito, San Mateo, Santa Clara and Santa Cruz Counties.

Hartzell H. Ray, San Mateo, *Councilor.*

Monterey County Medical Society

The Monterey County Medical Society has grown to a membership of 127 active members in the past year, now entitling them to three delegates.

The meetings for the year were well attended and the scientific programs of the year were very informative and well received.

The Board of Directors met monthly throughout the year. Besides the routine society business, conferences with C.M.A. Public Relations representatives, C.P.S. representatives and malpractice insurance company representatives and health and accident company representatives were held.

The Society cooperated with the C.M.A. Public Relations department, using advertisements in the local newspapers as prepared by this department. Efforts are now being made to sponsor TV programs on our local TV station.

The new officers for 1954 are: President, A. C. Mitchell; president-elect, Chester G. Moore; secretary, Clyn Smith, Jr.; treasurer, A. F. Kandlbinder.

Delegates: James A. McPharlin, T. D. Englehorn, and Howard E. Clark. Alternates: A. C. Mitchell, R. L. Hane, and Richard Handley.

We feel the coming year will be equally successful.

H. F. HUSSER, *Secretary*

San Mateo County Medical Society

During 1953 the San Mateo County Medical Society continued its rapid growth as evidenced over the last five years. There are now 367 members in one category or another in the Society. This can be compared with a membership total in 1949 of 177. Still of current interest is the subject of Voluntary Health Insurance, particularly in reference to labor union negotiations. This promises to be a key subject for debate in 1954.

During the year the Society's newly created polio committee evaluated the situation concerning this dread disease, and as part of their work, brought in the polio team from the Los Angeles General Hospital to a public meeting. All other meetings dealt with modern economics and business subjects, which course will be continued as a service to the members.

For 1954 Dr. Bradley C. Brownson was elected president; Dr. James S. Edwards, president-elect, and Dr. Norman C. Fox, secretary-treasurer.

It is contemplated that continued growth in the active members roll during 1954 will entitle the Society to its seventh delegate and alternate delegate to the C.M.A.

JACKSON FLANDERS, *Secretary-Treasurer*

Santa Cruz County Medical Society

Under the able leadership of President P. E. Karleen of Soquel, six bimonthly meetings were held during the year. The January meeting was devoted to the annual visitation of C.M.A. officials. President-elect Green and others addressed the members. In March we heard a report on the treatment of thyroid disease with radioactive iodine given by Dr. Dan Gorman of San Francisco. Dr. E. Alberton presented a paper on "Cardiac Emergencies" at the May meeting. In July Dr. Albert Daniels, C.M.A. secretary, addressed the Society on the general subject of "Cancer Detection." In September the subject of "Diabetes Mellitus" was ably presented by Doctor Reiss of San Francisco. Dr. James Whitelaw addressed the November meeting on the subject "Use and Abuse of Female Hormones." At this meeting the annual business meeting was held and Dr. D. B. Redgwick of Capitola was elected to serve as president during 1954.

SAMUEL B. HANDALA, *Secretary*

San Benito County Medical Society

The San Benito County Medical Society held its election of officers at its December 17, 1953, monthly dinner meeting at the Villa Paco Hotel, Hollister. E. C. Sheldon, M.D., was elected president, Kent S. Taylor, M.D., president-elect, and Peter Jones, M.D., secretary. The new officers for 1954 will be installed January 21, 1954, at a dinner meeting to be held at the Holland Hotel with doctors' wives as guests, and with the following C.M.A. officials as honored guests for the evening: Doctors A. A. Morrison, John Humbar and Glenn Gillette.

An informal gathering will be held at Doctor Sheldon's newly completed residence just prior to the dinner meeting with wives, officials, and doctors in attendance.

GORDON L. BRAIFF, *Secretary*

EIGHTH DISTRICT

San Francisco County.

Sidney J. Shipman, San Francisco, *Councilor.*

San Francisco Medical Society

During the year 1953, Society action with regard to prepaid health insurance continued along the lines described in the 1952 annual report. An average fee schedule was prepared and approved as a guide to fair fees for physicians. Meetings were held with various groups to discuss insurance programs.

Our Blood Bank remained active in the first part of the year in the armed forces blood program, but with the cessation of hostilities concentrated on its civilian program. At the close of the year, interest centered on the campaign to raise funds for equipping the bank when the Society moves to new quarters.

The year saw final formulation of plans for the new headquarters and blood bank building. At the end of December, we were waiting for the architect's final plans to let them out for bids.

Attendance at scientific meetings was again poor. It is to be hoped that the recent reduction in number of hospital staff meetings will free members to attend Society meetings as our programs have been excellent.

Our delegation to the C.M.A. was active prior to both the regular and interim sessions and took an important part in state affairs. It has been suggested that the delegation meet regularly throughout the year to keep abreast of current events.

HERBERT C. MOFFITT, JR., *Secretary-Treasurer*

NINTH DISTRICT

Alameda and Contra Costa Counties.

Donald D. Lum, Alameda, *Councilor.*

Alameda-Contra Costa Medical Association

There were 1,453 members of the Alameda-Contra Costa Medical Association at the close of 1953.

The new A.C.C.M.A. blood bank and headquarters building was completed, and an open house given for all of the members of the Association and their wives, November 8.

The postgraduate course offered by the Committee for Graduate Medical Education of the A.C.C.M.A. and the Institute for Metabolic Research at Highland Alameda County Hospital, was so successful that it was determined to make it an annual event, the second course being planned for February 8-13.

As a result of an overwhelming affirmative vote on a resolution of the council of the A.C.C.M.A. to undertake a "Statistical Study of Fees," a schedule of procedures was sent to the membership, and is now in the process of being tabulated. This "Statistical Study of Fees" is to be made available to insurance plans for their guidance in setting the level of indemnities and to individuals and groups holding or contemplating the purchase of insurance for the purpose of testing the level of indemnities provided by the insuror. The East Contra Costa Branch of the Association voted to go ahead immediately on their own study of fees. This study has already been tabulated, and the resulting list of median and average fees has been enthusiastically received by both union groups and insurance carriers.

BERNARD B. GARWOOD, *Secretary*

TENTH DISTRICT

Del Norte, Humboldt, Lake, Marin, Mendocino, Napa, Solano, and Sonoma Counties.

Warren L. Bostick, Mill Valley, *Councilor.*

Napa County Medical Society

The Napa County Medical Society held meetings each month during 1953 except in November when two meetings were held.

The Society was fortunate in securing the following guest speakers: Dr. Maurice Sokolow, Dr. Ephraim Engleman, Dr. David Wood, Dr. Franklyn Hill, Dr. L. Henry Garland, Dr. Glenn Hill, Dr. Frances Torrey, Dr. Theo Miller, Dr. John McGrath, Dr. Edmund Overstreet, Dr. Arlo A. Morrison, Dr. Warren Bostick, Mr. Ben Read, Mr. Ed Chaney, Dr. Salvatore Lucia and Dr. Charles A. Sweet.

The June meeting was a four-county meeting in which Solano County was host. An excellent afternoon of golfing preceded the evening meeting. The occasion was much enjoyed by all.

The September meeting was held at Travis Air Base with Col. W. DeWitt acting as host to the Society. The members of the Society were permitted to inspect one of the B-36 bombers.

At the November 11 meeting, the wives were invited and our state president-elect, Dr. Arlo A. Morrison, our Councilor, Dr. Warren Bostick, Mr. Ed Clancy of the Public Relations Department, and Mr. Ben Read of the Public Health League of C.M.A. gave us interesting and useful information on medical trends of today.

Dr. Theo K. Miller, superintendent of Napa State Hospital was host at the March meeting when the Society was entertained at the Napa State Hospital.

Dr. Harold James, our vice-president, was host to the Society when the Society was entertained by St. Helena Sanitarium and Hospital at our May meeting.

Dr. Floyd Hohnstein and Acting Commandant Col. Stanley Dunmire were hosts at the November 18 meeting when the Society was entertained by the Veterans' Home of California at Yountville. At this time the following officers were elected for 1954: President, Dr. Harold James; vice-president, Dr. Herbert Messinger; secretary, Dr. Merle Godfrey. Delegates to the C.M.A. were Fred Heegler and his alternate, Dale E. Barber, and Walter Brignoli and his alternate Donald B. Marchus. Our Society keenly regrets the untimely passing of Col. Nelson Holdermann, commandant of the Veterans' Home.

The Napa County Medical Society is very fortunate in enjoying the friendly hospitality of these fine institutions.

In an effort to bring our medical men in closer relationship with other professions, a joint meeting was held with the Napa County Dental Society at the time of the Christmas meeting in December. The two societies enjoyed an excellent address by Dr. Charles A. Sweet, Sr., of Oakland.

We feel that we have enjoyed a good year and have been fortunate in securing such outstanding men to come and lecture to us.

Eight new members were added to our Society during the year.

MERLE F. GODFREY, *Secretary*

Solano County Medical Society

Dr. M. B. Smith, president, led the Solano County Medical Society through a very active year in 1953. These activities were highlighted by many excellent scientific programs arranged by the program chairman, Dr. Felix Rossi. The scientific presentations were outstanding in quality.

Notable were the activities of Dr. Melvin Schmutz and his committee in the field of health insurance for labor groups. Dr. Schmutz and his committee held several meetings with local union leaders as well as management personnel. Particular credit is due to Dr. Schmutz and his committee for the progress made in this important endeavor.

The Community Blood Bank in Vallejo was aided by the establishment of a telephone appointment system which is sponsored and financed by the society. Members have cooperated in participating with the Irwin Memorial Blood Bank in many drawings in several communities in the county.

Solano County was host at the Four County Meeting held jointly with the Marin, Sonoma and Napa County Societies at the Green Valley Country Club. A meeting was also held at Travis Air Force Base and a joint meeting with the Solano County Bar Association. Both of these sessions were most enjoyable.

Further progress was made in the field of public relations under the direction of Dr. Harry Lammel, chairman of the Public Relations Committee with the assistance of the Public Relations Department of the California Medical Association. Among other things in this regard the Society has now approved an official telephone exchange.

H. L. JOSEPH, *Secretary-Treasurer*

Sonoma County Medical Society

The Sonoma County Medical Society, in 1953, continued its active program under the able leadership of Dr. Carl E. Anderson. The activities were funneled through the central office in charge of the Executive Secretary, F. L. Manker, attorney, and the Society's legal advisor.

New members in 1953 learned early the value of their membership, as all applicants were given an indoctrination briefing which points out the services offered by the Society to them as well as what the Society expects from them as ethical physicians. Part of the Society benefits include group liability insurance with the American Mutual Liability Insurance Company and group sickness and accident insurance with the National Casualty Company, in addition to the new state-sponsored accident and sickness insurance.

On the public relations front, the Society continued to offer round-the-clock doctor service through its emergency panel; telephone emergency listings were placed in the telephone directory; radio programs were presented; the Society worked in cooperation with allied public services such as the American Heart, Tuberculosis, Cancer and Crippled Children associations; space was used in newspapers to advertise the medical doctor.

Fourteen new members were added in 1953, bringing the active membership to 136 at the end of the year.

Intrasociety relations were aided by the continued publication of our monthly *Bulletin* and by fine scientific programs. Speakers included Robert Bishop, A. Frank Brewer, Daniel McCaskill, John Adams, Horace McCorkle, Earl Miller, David Wood, Ralph Benson, Henry Garland, Victor Richards, John Gofman, Al Nicholini, A. A. Morrison and Warren Bostick.

A two-day North Coast Counties Institute, sponsored by the California Medical Association's Committee on Postgraduate Activities, was held in February. Joint meetings were held with the Woman's Auxiliary in January, in October, and at the annual barbecue at the home of William Makaroff in August.

In November, the annual visit of the officers of the California Medical Association was held and the speeches of Drs. A. A. Morrison, Warren Bostick and Mr. Ed Clancy will long be remembered.

FRANK E. LONES, *Secretary-Treasurer*

ELEVENTH DISTRICT

Alpine, Amador, Butte, Colusa, Eldorado, Glenn, Lassen, Modoc, Nevada, Placer, Plumas, Sacramento, Shasta, Sierra, Siskiyou, Sutter, Tehama, Trinity, Yolo, and Yuba Counties.

Ralph C. Teall, Sacramento, *Councilor.*

Butte-Glenn County Medical Society

The Butte-Glenn Medical Society spent 1953 very actively. The Public Service Committee was especially busy under the direction of Dr. Philip Morgans. Both the complainants and the lawyers are beginning to use the services of this vital committee. Public Relations problems such as using consultation in difficult cases were not settled this year but efforts were put forth to clarify Public Relations to all members in addition to the use of C.M.A. and A.M.A. reports.

Dr. Donald Casey was an excellent president for 1953 and Dr. Thomas Elmendorf active as vice-president. The Board of Directors of this Society is alert and resolute.

Dr. Hollis Carey, C.M.A. district councilor, was busy at C.M.A. level and brought much useful data to the society which the society would not necessarily otherwise obtain and which has alerted it to larger aspects of medicine, especially economic ones.

The two-county area has 72 members including a further influx above that of last year.

Dr. Thomas Elmendorf was elected president for 1954; Dr. Frank O'Neill, vice-president; Dr. J. O. Chiapella, honorary secretary, and Dr. K. J. Chiapella, secretary.

The Society regrets the death of Dr. Earl Eames of Stirling City.

K. J. CHIAPELLA, *Secretary*

Placer-Nevada-Sierra County Medical Society

The Placer-Nevada-Sierra Medical Society held regular monthly meetings on the second Wednesday of each month except for June, July and August, 1953. One meeting (May) consisted of a medical cancer symposium sponsored by the California Medical Association Cancer Commission and the California Division of American Cancer Society.

The October meeting was a joint dinner meeting with the Woman's Auxiliary.

Officers elected for 1954 in November are as follows: John R. Topic, M.D., president; D. M. Kindopp, M.D., vice-president; T. J. Rossitto, M.D., secretary-treasurer.

Delegates to C.M.A.: William Miller, M.D., and Harry March, M.D.; alternate delegates to C.M.A.: Saul Ruby, M.D., and Max Dunievitz, M.D.

Our medical society has been cooperating with the C.M.A. Public Relations Department in sponsoring the public service announcement in all newspapers of Placer, Nevada, and Sierra counties.

T. J. ROSSITTO, *Secretary-Treasurer*

Sacramento Society for Medical Improvement

Organized in 1868, our Society is the oldest medical society in the state of California and has enjoyed steady growth since its inception. The society now has 297 active members. Society meetings are held on the third Tuesday of every month and an annual Founder's Day banquet is held on March 17, the anniversary of the founding of the Society.

An annual business meeting is held in December, at which time the Board of Directors, California Medical Association delegates and alternates, and the secretary-treasurer are elected. The president and the vice-president

are then elected from among the Board of Directors at their January meeting.

The society is continuing the program launched in 1950, guaranteeing to every resident of the community, good medical care, 24 hours a day, regardless of abil.ty to pay.

In order to accomplish this, the society operates a 24-hour medical telephone exchange, which has had to be expanded twice since its inauguration and now handles about 42,000 calls per month.

One of our outstanding committées is the Professional Conduct and Ethics Committee, which attempts to adjudicate differences between a patient and his physician and between physicians, should such instance arise. The society has a Membership Indoctrination Committee, which instructs new members in what they can expect from the society and what the society expects of them.

During the past year, a Press and Radio Committee has been formed whose purposes are: (a) to facilitate the dissemination of medical news; (b) to insure, as far as possible, that the news so disseminated will serve a useful purpose; (c) to increase the understanding between medicine and the news services of the problems peculiar to both professions; and (d) to avoid releases which tend to cause hysteria or furnish false hopes.

The society also operates the Sacramento Medical Foundation, one of eleven medically sponsored blood banks in California, which provides the blood requirements for most of Northern California.

During 1953, The Paul H. Guttman Library of the Sacramento Society for Medical Improvement was founded in the offices of the Society and promises to become one of the most complete medical libraries in Northern California.

FRANK G. SCHIRO, *Secretary*

Shasta County Medical Society

The Shasta County Medical Society now has 32 active members, there having been five new admissions. Several scientific and social meetings were held, including a meeting addressed by Dr. Malcolm H. Merrill, at which the Shasta County Bar Association and Dental Society were our guests.

The membership has made a unanimous contribution to the American Medical Education Foundation, and a loan fund for needy medical students from our area has been established.

Officers for 1954 are H. Harper Thorpe, president; Rex N. Card, vice-president; and Roy W. Thomas, secretary-treasurer.

Regular meetings of the Society are held on the first Monday of each month.

HENRY R. EAGLE, *Secretary-Treasurer*

Yolo County Medical Society

The Yolo County Medical Society held regular monthly meetings during the year 1953 except in July and August. At each meeting a paper was presented and a discussion was held by outstanding medical and surgical specialists from the San Francisco area on a variety of subjects of interest to all.

The Society was active in support of a countywide tuberculosis and diabetes survey conducted in the spring. The Society also lent its support individually and collectively to the local chapter of the American Cancer Committee during its annual drive.

Dr. Bernard Kordan of Sacramento and Dr. Joseph Cook of Dixon resigned from the Society during the year.

New members admitted during the year were: Dr. Benjamin Robinson of Woodland and Dr. John Jones of Davis.

New officers for the year 1954 were elected at the December, 1953, meeting: Dr. John Saltsman of Vacaville, president; Dr. Richard Cundiff of Woodland, vice-president; Dr. William Robinson of Woodland, scretary-treasurer; Dr. James Kimbell of Vacaville, and Dr. Edwin Copeland of Woodland, delegates to the C.M.A. convention.

WILLIAM T. ROBINSON, *Secretary*

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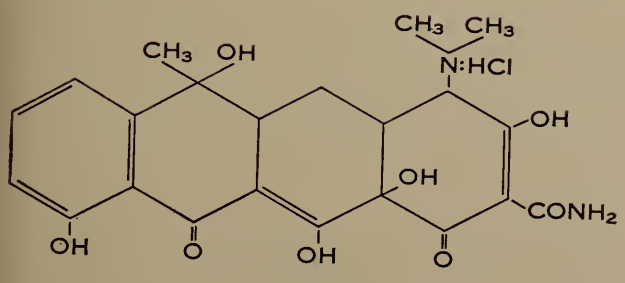

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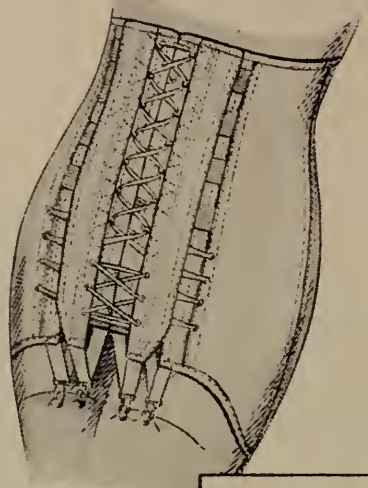

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Describes Successful Use of New Plastic Dressing

Successful use of a new plastic dressing for burns and surgical wounds was described in a recent issue of *Archives of Surgery*, published by the American Medical Association. The dressing, a sprayable, transparent, film-forming polyvinyl plastic, is called Aeroplast (trade mark).

Originally designed as an emergency, initial local dressing for mass treatment of thermal burns, Aeroplast also meets the essentials of a good surgical dressing, according to Dr. Daniel S. J. Choy, Dayton, Ohio. Aeroplast dressing can be removed in one piece, and preliminary studies have shown that it causes no systemic or local toxicity or sensitization, he reported.

"Use of the Aeroplast as an initial temporary dressing to prevent further wound contamination opens channels of use in front line battalion aid stations, in bomber aircraft on extended missions over hostile territory, in airfield crash ambulances, and in military and civilian rescue operations following atomic attack," Dr. Choy said.

He based his conclusions on a study of 50 patients treated with Aeroplast, 11 of whom had first to third degree burns, 8 of whom had skin graft donor sites which were regarded as second degree burn equivalents, and 31 of whom had other types of surgical lesions such as operative wounds and lacerations of the hands, neck, face and scalp. The Aeroplast was sprayed or painted directly onto the lesion.

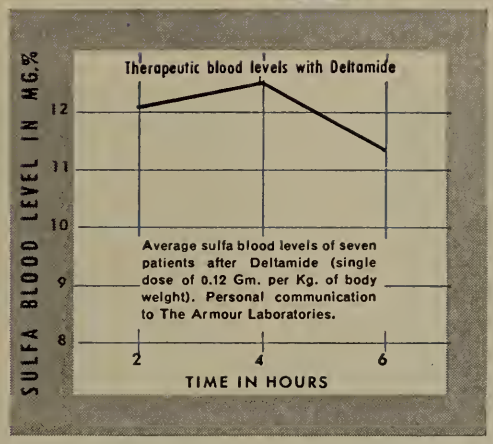
Among the advantages which make Aeroplast particularly suited for mass therapy of burns, Dr. Choy stated, are: Marked saving of time over conventional pressure dressings in application; the feasibility of its use by relatively untrained personnel; applicability to parts of the body poorly adapted to pressure dressings; transparency, allowing frequent inspection of the burned area without removal of the dressing, and flexibility, allowing relatively unrestricted early exercise of burned hands and digits without loss of integrity of the dressings.

Other advantages are impermeability to bacteria; minimal storage problems, including the elimination of the necessity for periodic resterilization; moderate prevention of bacterial growth; the absence of tourniquet effect on limbs and restriction of respiration when applied to the abdomen and thorax, and portability and feasibility of use under adverse conditions.

Aeroplast's advantages in surgical wound cases, Dr. Choy found, are: No retardation of wound healing, ability to maintain the sterility of a clean wound, ease of application and removal, and transparency.

The chief drawback of the Aeroplast proved to be the 30- to 45-second period of sharp stinging felt when the dressing was applied to a raw area. The stinging sensation, however, is no worse than that of the burning caused by standard antiseptics, he said.

The synergistic action of Deltamide w/Penicillin promotes faster patient recovery in prevention and control of infections secondary to influenza. In addition, Deltamide w/Penicillin produces effective and well-sustained blood levels.



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Deltamide w/Penicillin is available in two dosage forms—tablets and pleasant-tasting, chocolate-flavored suspension.

THE NEW QUADRI-SULFA MIXTURES

Each tablet, or each teaspoonful (5 cc.), provides:

Sulfadiazine	0.167 Gm.
Sulfamerazine	0.167 Gm.
Sulfamethazine	0.056 Gm.
Sulfacetamide	0.111 Gm.
Potassium Penicillin G (Buffered)	250,000 units

Tablets: Bottles of 36 and 100.

Powder for Suspension: 60 cc. bottles to provide 2 oz. of suspension by the addition of 40 cc. of water. Deltamide and Deltamide w/Penicillin Suspensions are preferred because of extreme palatability.

DELTAMIDE

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Each tablet, or each teaspoonful (5 cc.) of pleasant, chocolate-flavored suspension, provides:

Sulfadiazine	0.167 Gm.	Sulfamethazine	0.056 Gm.
Sulfamerazine	0.167 Gm.	Sulfacetamide	0.111 Gm.

Tablets: Bottles of 100 and 1000. **Suspension:** Bottles of 4 oz. and 16 oz.

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Profits from New Project Go to Education Foundation

The California Medical Association, through its recently-formed subsidiary, Audio-Digest Foundation, is promoting a new means of communication for medical learning, and it has announced that profits from the project will go to the American Medical Education Foundation.

A.M.E.F. Secretary Hiram W. Jones estimates that if 20,000 subscribers sign up, nationally, the medical education foundation can reap approximately $1,000,000 annually.

Using tape-recorded material, the Audio-Digest Foundation makes available to doctors three "post-graduate services" designed to save their time while increasing the scope of their knowledge.

The basic service is the weekly issuance of a one-hour tape for general practitioners, on which are recorded from 20 to 30 abstracts of the best in current medical literature embracing all fields. These articles are screened by a board of medical editors. As a corollary service, Audio-Digest offers semi-monthly digests in the fields of surgery, internal

(Continued on Page 79)

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** Steigmann, F., and Goldberg, E., J. Lab. & Clin. Med. 42:955 (1953)

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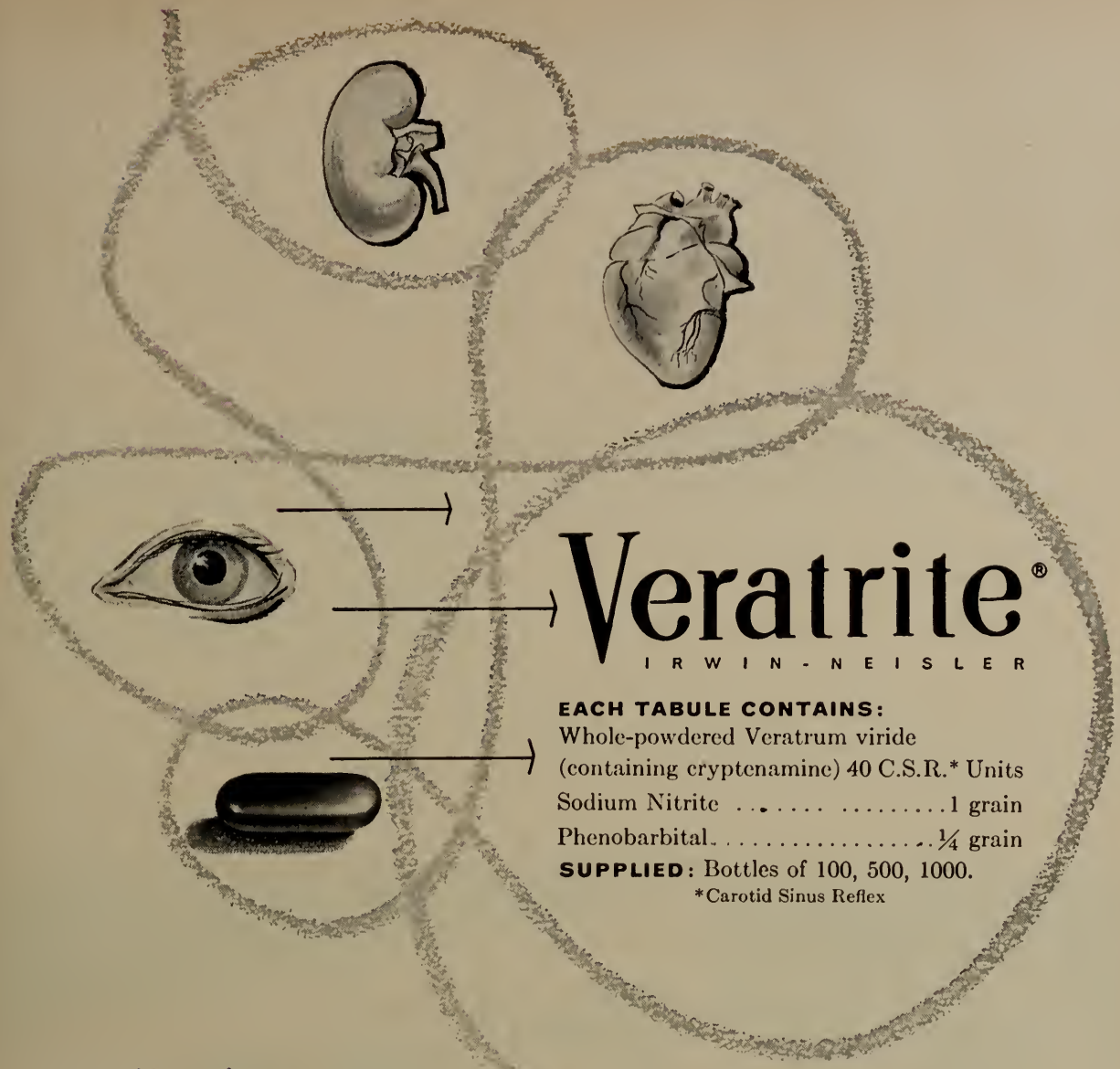

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Fifteen years of research, clinical studies and practical experience in many thousands of ambulatory patients have established an unequaled record of efficacy combined with safety for the Veratrum viride preparations of Irwin-Neisler.

Veratrite tabules provide the best effects of Veratrum viride in a form especially suited to the long-term management of the large majority of hypertensive patients.

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New A.M.A. Committee Appointed

At the A.M.A. Clinical Session in St. Louis, the House of Delegates adopted a resolution calling for the appointment by the Board of Trustees of "a special committee with broad representation throughout the profession" to study "all aspects of the problems of public relations created by recent adverse publicity."

The resolution, introduced by Dr. John F. Burton of Oklahoma, referred specifically to "published statements of certain medical spokesmen concerning alleged unethical practices by members of the medical profession" which have "tended to destroy the confidence of patients in their physicians, without solving the basic problems involved."

The board appointed the following five physicians to the committee: Drs. Stanley R. Truman, chairman, Oakland, Calif.; John S. DeTar, Milan, Mich.; Leland S. McKittrick, Brookline, Mass.; James Q. Graves, Monroe, La., and Felix L. Butte, Dallas.

The committee has been instructed to report its findings and make whatever recommendations it deems necessary to the House when it meets in San Francisco in June.

—A.M.A. Secretary's Letter

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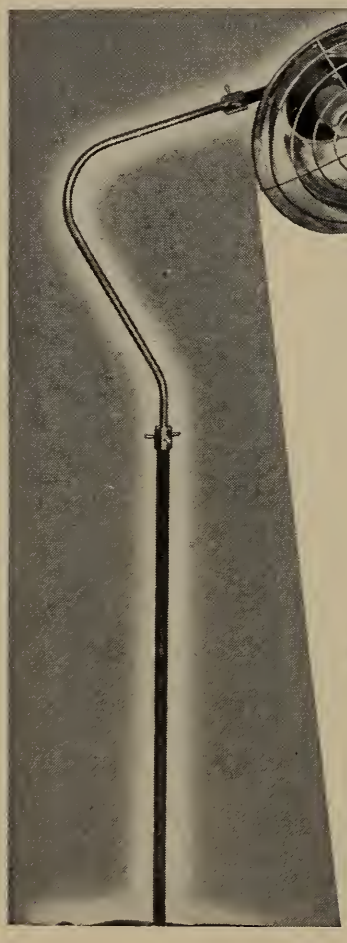

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Profits from New Project Go to Education Foundation

(Continued from Page 72)

medicine and ob-gyn. The third service is tape-recorded lectures and panel discussions on one-hour reels for individual or group purchase. Many of these lectures are illustrated by film strips made from the speaker's own slides and cued by him in the recording.

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—A.M.A. Secretary's Letter

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(Continued from Page 74)

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Parents Should Teach Children Basic Fire Safety Rules

Keeping the home fires burning and keeping from being burned in home fires are two entirely different things.

To prevent unnecessary injuries and deaths from home fires, parents should teach their children the elementary facts of fire safety, Dr. Carl J. Potthoff, Rochester, Minn., wrote in a recent issue of *Today's Health* magazine, published by the American Medical Association.

"After the Christmas upswing in the incidence of home fires, there usually is a moderate decrease for several weeks, and then a rise again in February and early March," he stated. "There is no practical way to fireproof a home completely; the term 'fireproof' when applied to dwellings of any sort is a misnomer. Even in homes of the safety-conscious where education within the family, good housekeeping, construction and repairs are aimed to prevent fires, some hazard exists.

"Accordingly, homemakers should work out plans with the children for use if fire strikes. Education should be judiciously factual according to the age of the child, lest children develop a haunting fear of home fires, particularly night fires."

According to Dr. Potthoff, parents should stress:

1. That escape from the burning building, not the saving of property, is the paramount objective.

2. How to notify the fire department and how to use fire extinguishers.

3. That if clothing catches fire, either in a home fire or otherwise, it usually is advisable to lie down and to roll over slowly, as flame and heat rise to the face. Wrapping a blanket about the body may be worth while; running tends to fan the flames.

Dr. Potthoff stated that children also should be taught that when escaping from a fire the following rules should be observed:

1. Keep low in a fire-swept room as the risk from heat, smoke and carbon monoxide is less.

2. Don't open doors and windows because drafts cause a faster spread of fire.

3. Doors should be opened cautiously while standing behind them, as the next room may contain superheated air, a blast of which may be lethal.

4. The important body parts—face, hands, scalp—can be protected somewhat by a heavy towel or article of clothing, preferably wet, while dashing through flame.

5. Jumping from upper stories often is fatal and often unnecessary as rescue may be at hand.

6. When doors and transoms are closed, open a window slightly and stay near it, breathing the incoming air.

7. Don't reenter a burning building to try to rescue a toy or pet.

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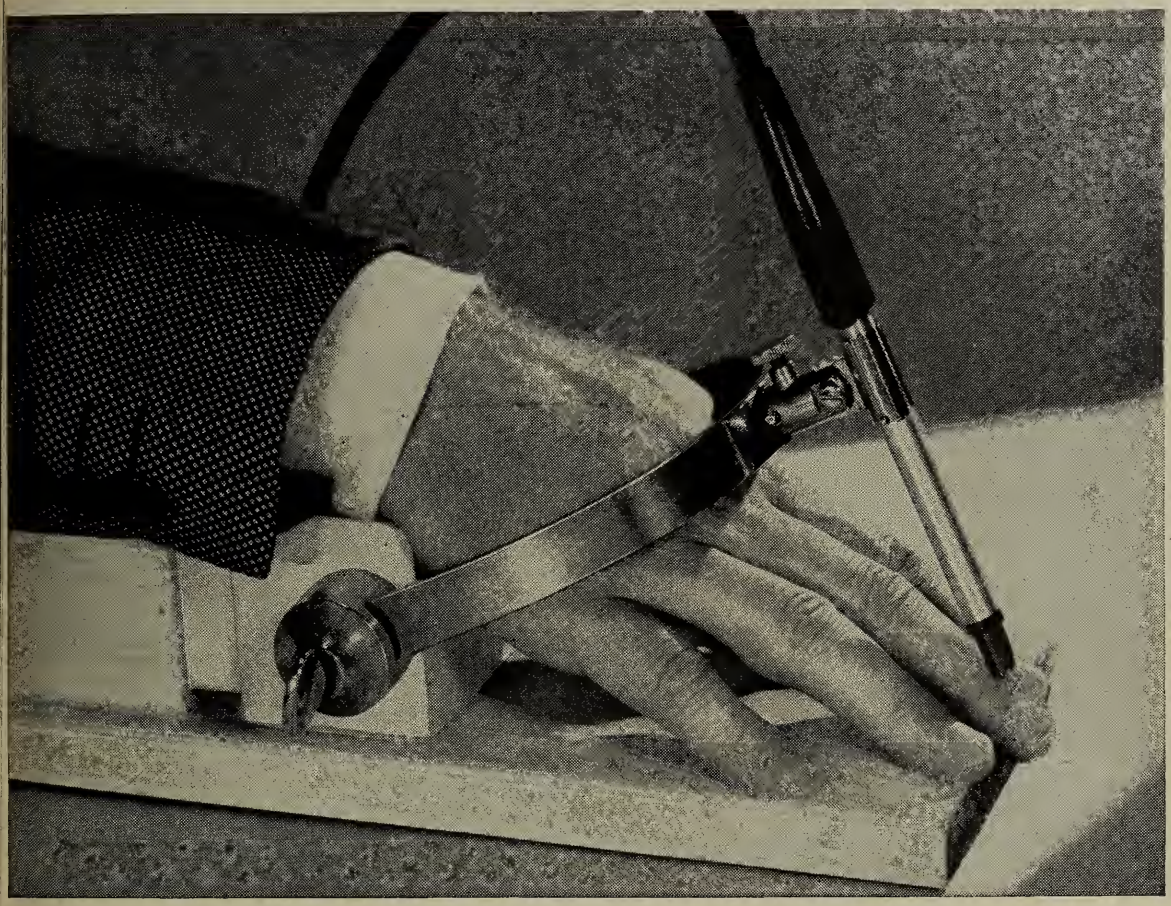

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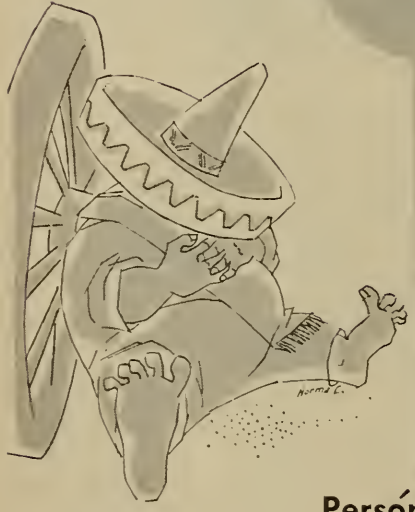

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Case of Multiple Episodes of Heart Stoppage Reported

An unusual case of successful restoration of heart function on four separate occasions within a ten-day period following long periods of circulatory cessation was reported in a recent issue of the *Journal of the American Medical Association*. The patient, however, succumbed to a fifth stoppage.

The patient, a 68-year-old woman, was admitted to the hospital of the University of Pennsylvania for surgery. On the fourth day following surgery she suffered her first instance of cardiac arrest. Four minutes after her heart ceased beating, an intern struck her sharply on the chest over the heart. There was an immediate resumption of respiration and pulse, according to the article.

Five days after the initial cardiac arrest episode, the patient suffered a second attack. A blow on the chest over the heart by a nurse proved ineffectual. Artificial respiration and oxygen by inhalation were instituted. Five minutes after the attack, an intern again struck the patient on the chest with his fist, and once more her pulse and respiration were restored.

The third attack of heart stoppage occurred three days later. Several blows on the chest failed to restore the heart's function. Nasal administration of oxygen and mouth-to-mouth respiration were employed. Ten minutes later the patient's chest was surgically opened and the heart massaged. Oxygen, stimulants, blood, and electric shocks were necessary to restore heart function.

The fourth attack occurred the next day, and again the patient's chest was opened and the heart massaged. Heart function was restored without the use of drugs or electrical stimulation. The patient died during the fifth attack four days later.

Surgical opening of the chest and massage of the heart have been generally advocated as the form of resuscitative therapy to be used in cases of cardiac arrest, the article pointed out, adding:

"This case history clearly shows that this form of treatment is not only life-saving, but may be carried out successfully twice in the same person. Although recently it has received relatively little attention in the literature, it has been known that under such circumstances a strong blow struck on the chest may restore an effective circulation to a person with so-called cardiac arrest. In this patient the need for thoracotomy was obviated on two occasions by a simple blow on the chest.

"The speed and ease with which the precordium may be struck certainly justifies the trial of this procedure in many cases of cardiac arrest before cardiac massage is undertaken.

"It is seldom that patients in whom cardiac arrest occurs on the hospital wards survive, as precious

(Continued on Page 92)

Indigestion"

McHardy[1] reports that Bentyl is "superior to atropine" for relief of pain due to pylorospasm. He confirms the work of others that Bentyl is free from significant side effects which permits more general use in nervous indigestion.

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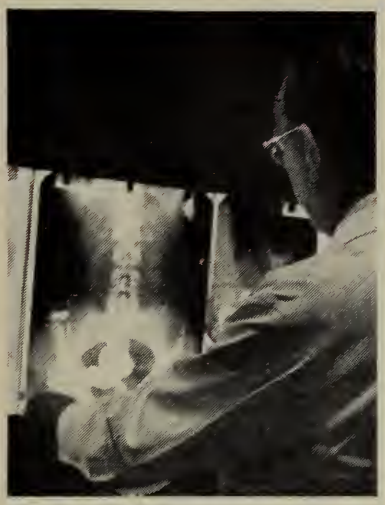

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1. McHardy and Browne: Sou. M.J. 45:1139, 1952.

2. Lorber and Shay: Fed. Proc. 12:90, 1953.

Complete Bentyl bibliography on request.

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Case of Multiple Episodes of Heart Stoppage Reported

(Continued from Page 88)

time is usually lost before circulation can be restored. It is of interest that this patient had three separate episodes of arrest longer than four minutes' duration (the usually accepted upper limits for effective restoration) with full return of consciousness, and significant permanent damage to the nervous system did not appear to have occurred after the first two occasions."

The report was made by Drs. Brooke Roberts, Truman G. Schnabel, Jr., and I. S. Ravdin, Philadelphia. They are associated with the Harrison Department of Surgical Research, School of Medicine, University of Pennsylvania, and the Robinette Foundation of the Department of Medicine of the University of Pennsylvania Hospital.

Emotional Factors May Contribute To Ear Disorder

Emotional upsets may contribute to a form of deafness known as otosclerosis, according to Dr. Edmund P. Fowler, New York.

Writing in a recent issue of the *Journal of the American Medical Association*, Dr. Fowler stated that he has found the incidence of the disease—a formation of bone in the inner ear that results in deafness—to be greater in emotionally sensitive or unstable persons predisposed to the disease than in more emotionally stable ones.

"In otosclerosis the onset of deafness and its periods of rapid increase appear to coincide in time with, or more commonly subsequent to, puberty, childbearing, the onset of the menopause, severe illness, psychic traumas, and stress and anxiety, all of

(Continued on Page 94)

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Emotional Factors May Contribute To Ear Disorder

(Continued from Page 92)

which are accompanied by major autonomic nervous system readjustments or dislocations," Dr. Fowler said.

He reported on a 12-year study of seven pairs of identical twins, one or both of whom had otosclerosis in one or both ears. In one pair of male twins, only the right ears were severely deafened, in two pairs of female twins one twin in each pair had deafness in one ear, and in two pairs of female twins one twin in each pair had no deafness in either ear at first examination.

"In the identical twins studied, in every instance but two, the twin in whom deafness due to otosclerosis first developed was the one who prior to the deafness was the more emotional of the two," Dr. Fowler pointed out. "In two instances otosclerosis developed in both twins about the same time and both suffered severe emotional stress in their teens."

According to Dr. Fowler, the time lapse between the onset of the lesion of otosclerosis and the appearance of deafness may be months or years. He added that the affliction occurs more frequently in some families and generations than in others, and that diagnosis of otosclerosis in children and young adolescents is usually impossible or very uncertain.

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American Medical Association's Board Discusses Eisenhower Health Plan

The A.M.A. Board of Trustees held an all-day meeting recently in Chicago's Drake Hotel to study and discuss the implications of the proposed Eisenhower health plan, especially that portion which urged establishment of a $25 million federal corporation to "reinsure" voluntary health insurance plans.

The board discussed the President's proposals with representatives of both the non-profit and the commercial insurance companies. They debated the subject at some length, later drafting a statement.

In studying the proposals, the board reviewed a number of newspaper editorials for and against the "reinsurance" plan.

The board's statement follows in full:

"The Board of Trustees of the American Medical Association has given careful study to the President's Message on Health delivered to Congress on January 18. The board is pleased to find in this message so many of the ideas and principles for which the American Medical Association has striven for so many years.

"The board endorses the general objectives of the President to extend needed facilities, to promote further research, to increase coverage under voluntary health insurance and to rehabilitate the disabled.

"There are certain basic principles which the American Medical Association feels are essential in the consideration of any voluntary health insurance program: There must be free choice of physicians and hospitals; the program must be founded on sound actuarial data and there must be no direct or indirect control of the program by the government.

"The Administration's federal reinsurance proposal is indefinite. It is not clear whether this is true reinsurance or another form of government subsidy. This whole subject needs careful study and until the plan is spelled out in detail the American Medical Association can make no further comment.

"The American Medical Association feels that there may be other approaches to the problem of the extension of health coverage than that of federal reinsurance. For example, the A.M.A. has strongly supported legislation to permit deduction from income for tax purposes of medical and hospital bills and premiums paid for voluntary health insurance."

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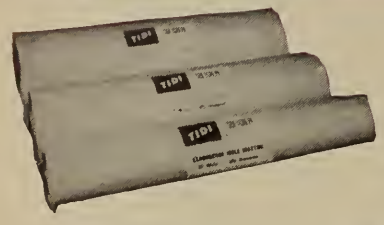

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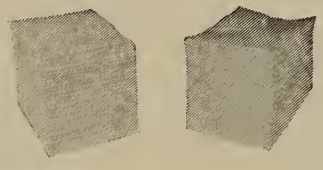

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Many Symptoms Falsely Blamed On Food Allergy

Although two or three out of every hundred persons have a serious sensitivity to food, many of the symptoms ascribed to allergy are not due to that at all, according to Dr. Samuel M. Feinberg, chief of the allergy clinic and director of the allergy research laboratory at Northwestern University Medical School.

"There is a common notion that when any food does not agree with a person he is allergic to it," Dr. Feinberg wrote in a recent issue of *Today's Health* magazine, published by the American Medical Association. "This is far from correct. A large number of people have allergy to foods. Estimates of how many vary. Perhaps in two to three per cent of the population food allergy is more or less a major problem."

Many foods can cause irritation of the gastrointestinal tract or abdominal discomfort without being the result of an allergy. Allergy to foods will produce such symptoms as hives, eczema, asthma, nasal congestion and headaches.

Almost every food is at least potentially capable of causing allergy, although a relatively small number of foods are responsible in most cases. The more important causative agents are wheat, eggs, fish, nuts, peas, beans, potatoes, onions, garlic and milk. The amount of food required to produce allergy symptoms varies considerably, he said, adding:

"The degree of sensitivity varies with different people and in the same person at different times. Fatigue, nervousness, tension, unhappiness, indigestion or certain phases of the menstrual cycle may lower the tolerance and make one more susceptible."

Allergenic properties also can vary with the state of the food, according to Dr. Feinberg. Cooking and canning tend to destroy some of this activity. Highly refined foods and those with little protein content are least likely to produce allergy symptoms.

"Since foods not only come in contact with the tissues of the digestive tract, but small portions of their allergenically active proteins are absorbed and finally circulate to every portion of the body, virtually no organ is exempt from possible reaction," Dr. Feinberg stated.

"But there is great danger in assuming that any ailment which cannot be explained otherwise is due to food allergy. The allergic person is as subject to other ills as the nonallergic person. Because a person happens to be allergic, it must not be taken for granted that his every ailment can be explained by the allergy."

If a patient's symptoms are caused by food allergy, the final goal is to determine the cause of the allergy. Often the food can be identified by the patient, but in many instances careful inquiry by the physician may be necessary.

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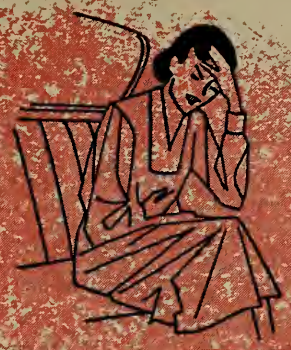

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Secy., Bernard B. Gadwood, 2815 MacDonald Ave., Richmond.

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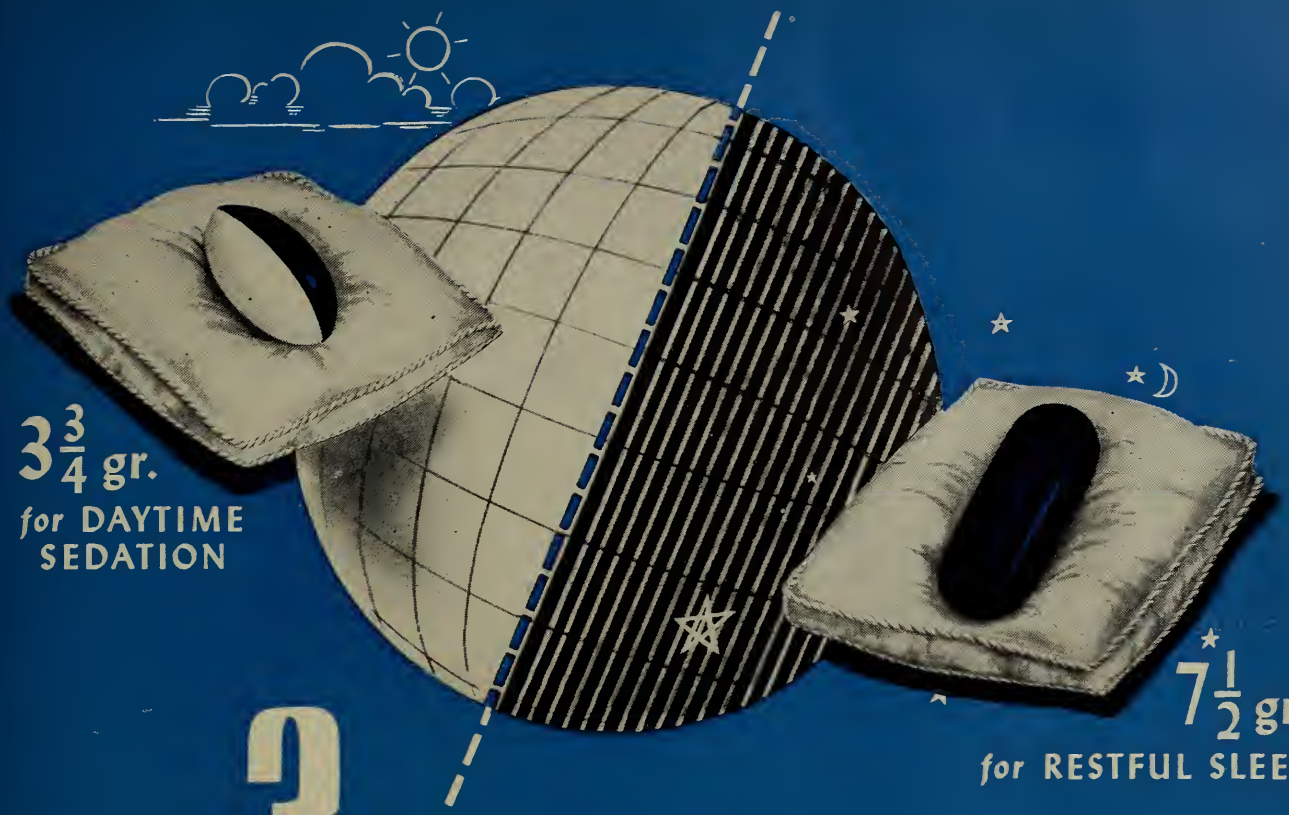

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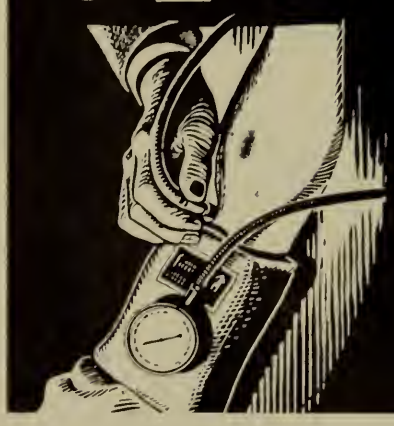

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How Special Medical Teams Saved Lives in Korea

Front-line care of soldiers with brain wounds by teams of very young neurosurgeons, Army nurses, enlisted surgical technicians, and helicopter pilots saved the lives of many Korean war casualties, it was reported in a recent issue of the *Journal of the American Medical Association.*

"The ultimate goal in the treatment of casualties with wounds of the brain is restoration of the greatest possible degree of function and rehabilitation," according to Dr. Arnold M. Meirowsky, Nashville, Tenn. "The achievement of this goal rests with the availability of earliest possible definitive surgical treatment and simultaneously applied special nursing care.

"Recognizing this, the Army Medical Corps used, in the Korean war, mobile neurosurgical teams that were attached to Mobile Army Surgical Hospitals, functioning at division level. Casualties reached these teams by helicopter directly from the Battalion Aid Stations within hours after being wounded.

"The teams were sufficiently staffed and equipped to perform definitive neurosurgery on all casualties with penetrating wounds of the brain and to render simultaneously the specialized nursing care that is oftener than not the key to success.

"The employment of helicopters for the rapid and smooth transport of these casualties made the work of the mobile neurosurgical teams possible, and the helicopter pilots deserve much credit for their great contribution. The teams themselves were staffed by a small group of very young neurosurgeons who interrupted their resident training to serve in the armed forces. These young surgeons set a record that speaks for itself. They and a small group of Army nurses and enlisted surgical technicians are responsible for the realization and for the success of the Army Medical Corps' new program in behalf of neurosurgical casualties."

As a result of the employment of mobile neurosurgical teams, certain infections following missile wounds of the brain were reduced from 41 per cent of all casualties at the beginning of the Korean war to less than 1 per cent, Dr. Meirowsky said.

Rapid relief from the damaging effects of blood clots, which form following brain injuries, is an important factor in the reduction of mortality from such injuries, Dr. Meirowsky stated. In the initial phase of the war, when neurosurgical casualties had to be flown to Tokyo for definitive care, only 7 per cent of all casualties with missile wounds of the brain were found to have these dangerous blood clots, he added. That figure rose to 28 per cent when neurosurgical casualties were cared for within 24 hours at a rear installation in Korea, and to 48.6

(Continued on Page 14)

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How Special Medical Teams Saved Lives in Korea

(Continued from Page 10)

per cent when cared for by front-line neurosurgical teams.

"We surmise that the realization of the earliest possible neurosurgical intervention in the Korean war saved the lives of men who could not have stood the trip back to a rear installation," he added.

Also aiding in the reduction in the morbidity and mortality from brain injuries during the Korean war, Dr. Meirowsky pointed out, were the availability of antibiotics, careful management of every scalp wound, a careful, prompt examination of every head injury, improved ways of caring for and treating patients in coma, and a better understanding and knowledge of head wounds and their treatment.

Dr. Meirowsky was former neurosurgical consultant to the chief surgeon, Far East Command, U. S. Army.

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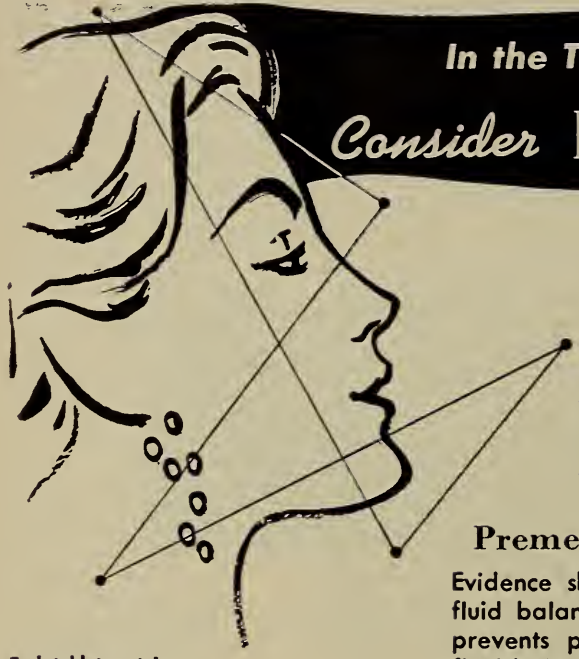

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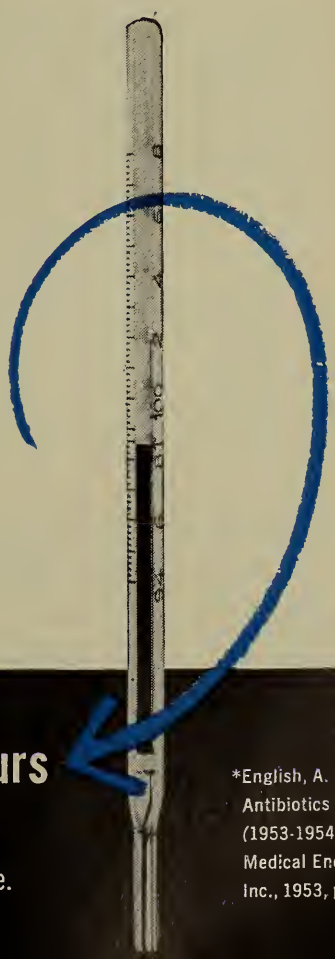

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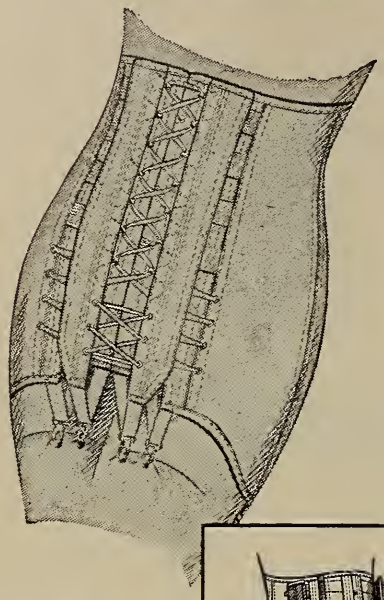

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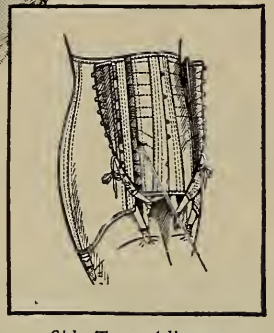

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American Medical Association President Urges Interest in Problems of Other Fellow

An interest in the problems of the other fellow for a better understanding among business, industry and the professions was urged by Dr. Edward J. McCormick, Toledo, president of the American Medical Association.

"One of the chief afflictions among professional and business men in our complex society today is lack of interest in what the other fellow is doing," Dr. McCormick wrote in a recent issue of the *Journal of the American Medical Association.* "As our technological progress grows, it becomes increasingly difficult to keep a broad perspective of what is going on, and the tendency to specialization grows stronger.

"The day of the plant superintendent who was able to boast that he could perform every one of the jobs in his shop with equal skill is rapidly vanishing. The business executive who could describe every intricate detail of his enterprise is becoming rare. And the family doctor once thought suitably equipped to handle almost any kind of ailment finds increasing need for consultation with specialists.

"With each passing year there is an ever-higher rate of skilled personnel crawling into hard shells of specialization that prevent overall contact with their industrial and professional neighbors. Worse yet, these persons become divorced from all community activity. Yet the need is great for a better understanding among business, industry and the professions. In turn these segments of our economy owe much to the communities in which they prosper, and persons owe to each other the obligation to be good neighbors."

Dr. McCormick stressed that if the medical profession is to continue serving the public effectively, it must seek out the facts on what the public wants. Getting together with representatives outside the medical profession is one way of doing this, he stated, adding:

"It is my sincere belief that local medical societies should encourage each individual member to participate in some civic undertaking. We physicians should be rendering health leadership in all service clubs, chambers of commerce, fraternal and veterans organizations, PTA groups, church associations, and unions.

"We cannot expect these organizations to be interested in our problems if we are not interested in theirs. Doctors should rub elbows on a social and organizational basis with persons outside the profession. There is much good to be gained in taking the time to learn the trouble of the other fellow. A diet limited to one-track ideas can lead only to social anemia."

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Doctors Still Opposed To Social Security Taxes

Some time ago a Congressman from New Jersey heralded a claim that rank-and-file doctors favor inclusion under Social Security despite the stand of opposition by the American Medical Association.

Paul C. Schaefer, executive secretary of the Arkansas Medical Society, immediately set out to learn if the Congressman knew what he was talking about.

He mailed a simple questionnaire to the 1,230 physicians in Arkansas, asking if they opposed compulsory extension of Social Security taxes to cover

(Continued on Page 30)

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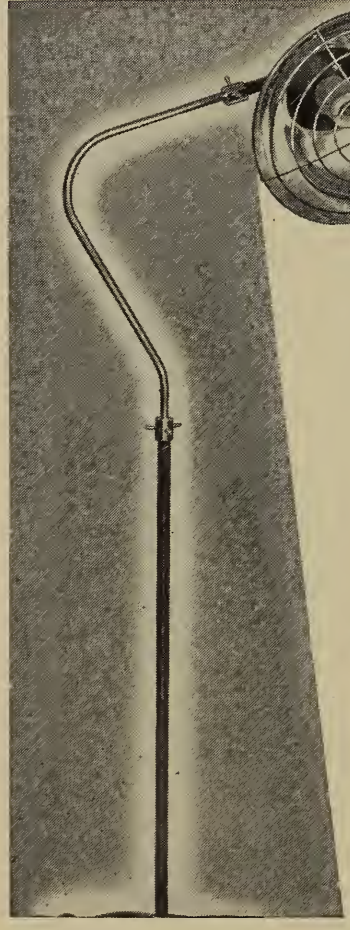

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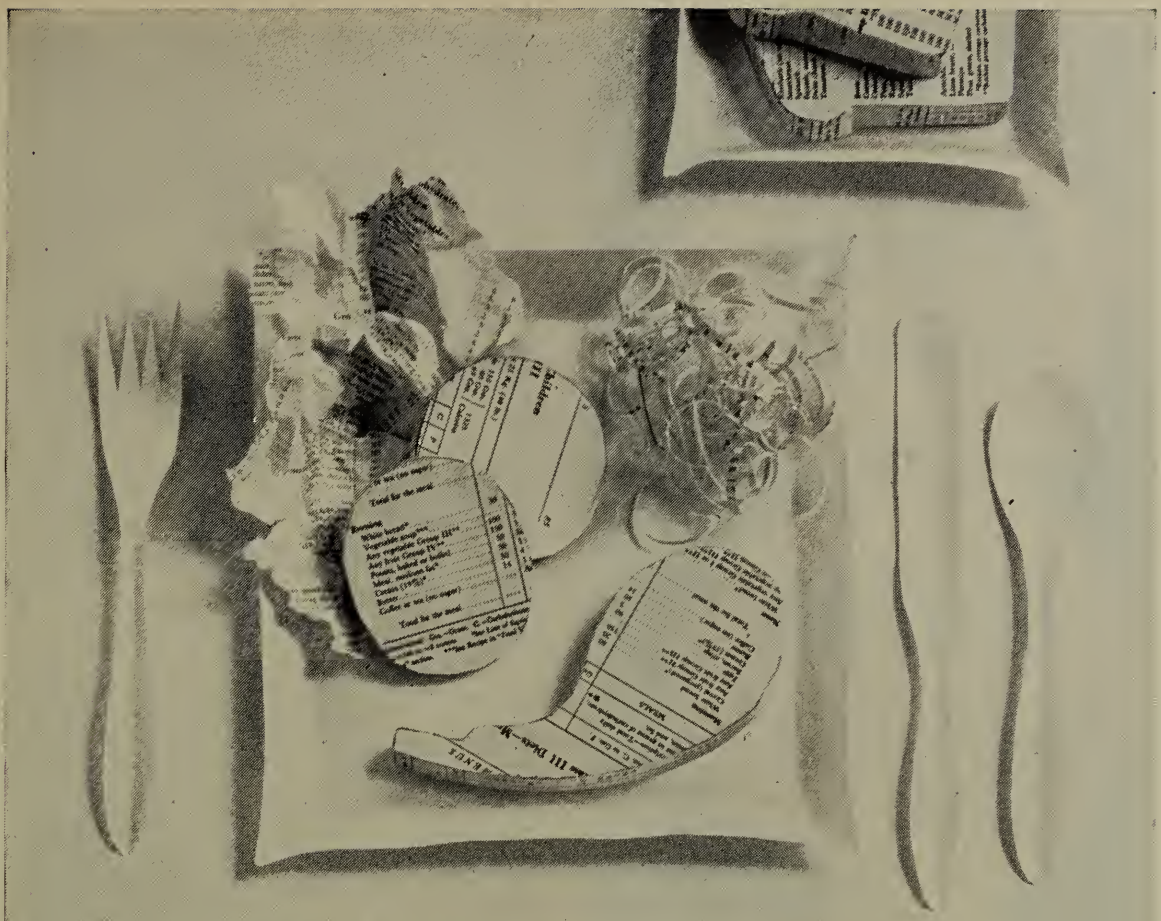

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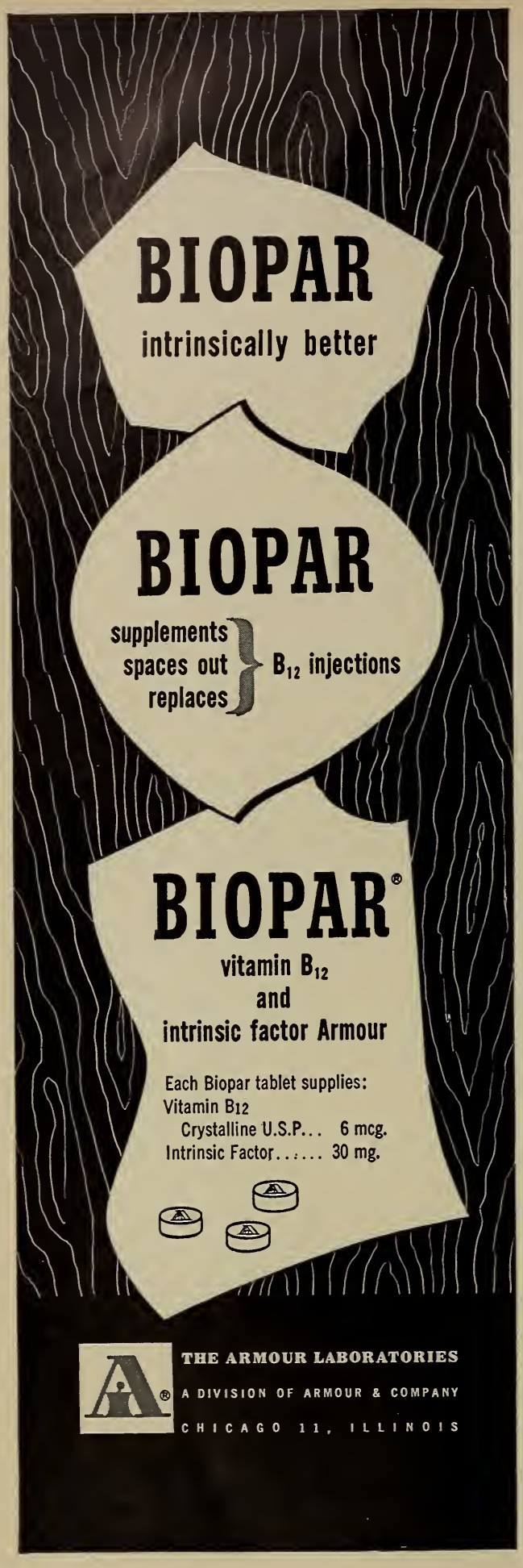

Major Surgery in Elderly Patients Relatively Safe

Major surgical operations can be carried out in patients over 70 years of age with reasonably low risks. Therefore, adequate surgical care should be made available to older persons not merely to save life but also to relieve discomfort and disability, in the opinion of Drs. John D. Stewart and Guy S. Alfano, Buffalo, N. Y.

They based their conclusions on two studies of persons over the age of 70 years who underwent surgical procedures. One study consisted of 204 general surgical patients who underwent 290 major operations, and the other of 43 patients who had major abdominal surgery.

The average age of the 43 patients was 74.4 years, the oldest being 88, the doctors wrote in a recent issue of the *Journal of the American Medical Association*. Four of the patients (9 per cent) died; two deaths were caused by heart conditions.

The average age for the series of 204 patients who underwent 290 general surgical procedures was 76.8 years, the oldest patient being 94. The overall mortality rate was 13 per cent (39 patients). However, the doctors pointed out, 21 of the 39 deaths probably had little relation to the surgical operation; 17 of the 39 patients who died had advanced cancer. If these deaths were excluded, the mortality rate was approximately 8 per cent, they added. Respiratory and heart and blood vessel complications were most commonly noted in the fatal cases.

There were no complications following 190 operations in the larger group, the doctors stated. When complications occurred, the commonest were those affecting the respiratory system, the surgical wound, and the heart and blood vessels.

"Considering the age of the patients in these studies and the severity of their diseases, one must conclude that the surgical operations were well tolerated," the doctors said.

In considering the problems of preoperative and postoperative care of the elderly, "one is impressed with the point that they differ only in degree as compared with the surgical care of younger patients," the doctors stated. The margin of safety is less, and sharper attention to details is necessary. Expert nursing care is a potent factor in recovery. They added that the daily routine of the elderly surgical patient should be upset as little as possible, and that he should be returned to his normal environment and activities as soon as practicable.

The doctors are associated with the department of surgery of the University of Buffalo Medical School and the E. J. Meyer Memorial Hospital.

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Doctors Still Opposed To Social Security Taxes

(Continued from Page 20)

physicians or whether they believed that doctors should be included in the program.

Mr. Schaefer received 713 replies opposing doctors' inclusion under Social Security. Only 122 favored being included under the program. Fourteen of the replies received could not be classified.

The poll, Mr. Schaefer said, not only proved that doctors wanted no part of this type of compulsory "insurance" from the government, but it also made many of them conscious of the pending legislation.

"Apparently many of them had not even considered or had never even heard of the bill, and I was pleased that it did have the effect of making them take notice of what was happening," Mr. Schaefer said.

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Los Angeles

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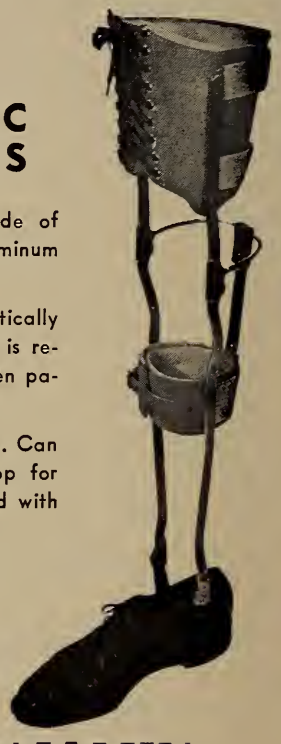

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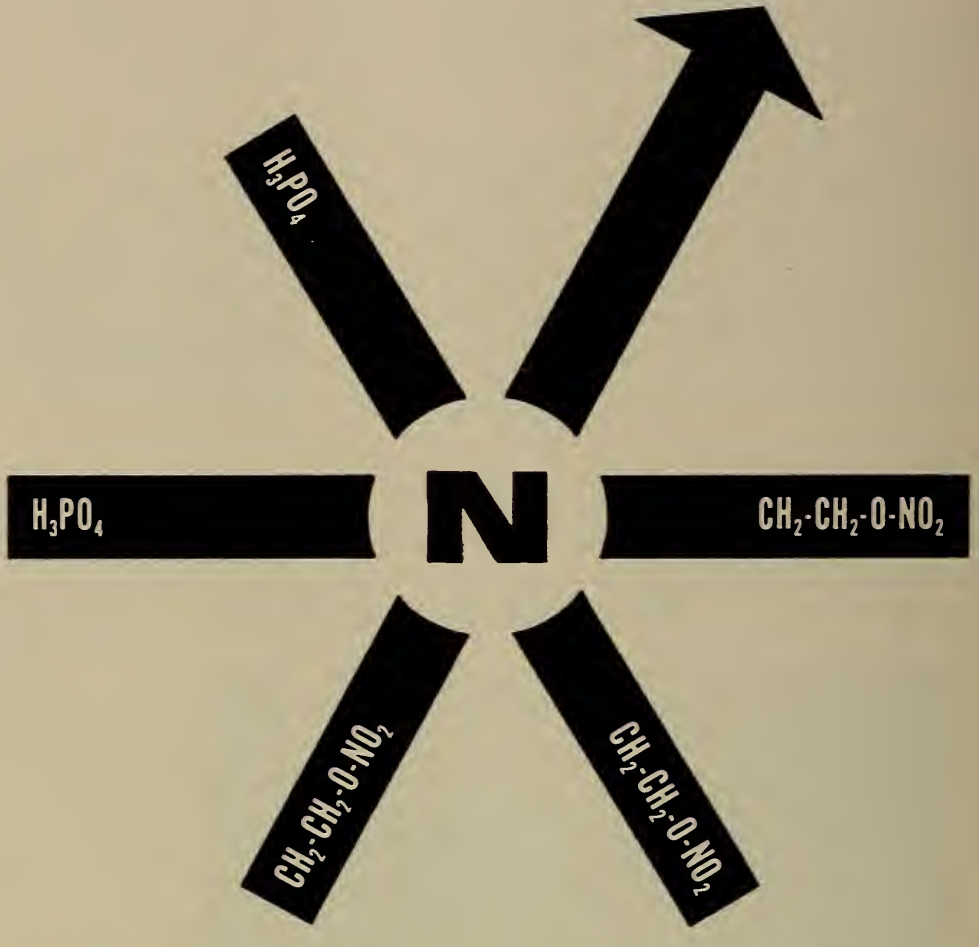

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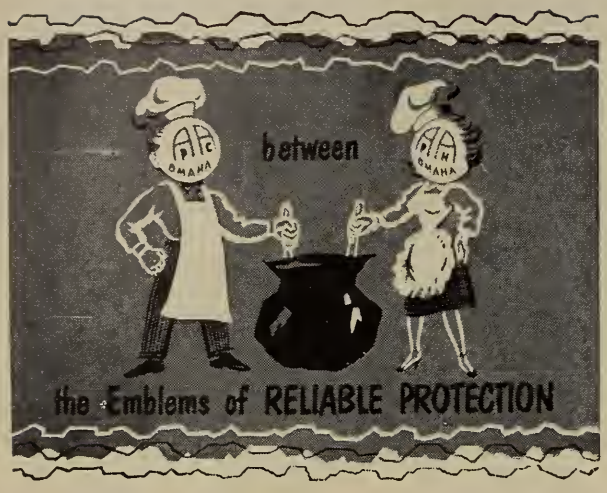

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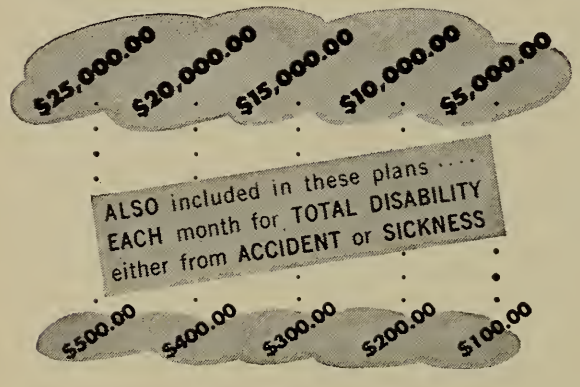

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Why the "Bricker Amendment" Is Important to the Medical Profession

The controversy stimulated by the amendment to the Constitution proposed by Senator Bricker and 63 of his colleagues has spread to every segment of our population, including the medical profession. The American Medical Association has received a number of letters from physicians during the past few weeks expressing various sentiments concerning the proposal. Some endorse the amendment wholeheartedly; others have deplored the intervention of organized medicine in what they consider to be a nonmedical issue; still others have requested additional information defining the threat to our system of medical care posed by our present method of negotiating and ratifying treaties.

On January 7, 1953, Senator Bricker and 63 cosponsors introduced S. J. Res. 1, 83rd Congress, which proposed the adoption of a constitutional amendment limiting the treaty-making authority. This resolution was referred to the Senate Judiciary Committee together with S. J. Res. 43 (sponsored by the American Bar Association). On June 15, 1953, the committee submitted a favorable report on S. J. Res. 1, with amendments, and recommended that it be adopted. The amended version of the resolution, as approved by the committee, stipulated that any provision of a treaty that violated the Constitution would be invalid and that the treaty power could be used to establish or modify internal law in the United States only through the enactment of domestic legislation that could have been adopted in the absence of such a treaty.

In tracing the interest of the medical profession in the Bricker amendment, it is important first to recognize the fact that treaties become the supreme law of the land if ratified by two-thirds of the Senate present and voting. In addition, it must be noted that significant changes have occurred during the past few years in the scope of treaties and executive agreements negotiated by the executive branch of the government. Although these instruments formerly involved only international matters, there are now pending treaties or executive agreements whose ratification would change our domestic laws.

In the health field three specific situations can be explored. They deal with the activities of the United Nations treaties of friendship with other countries and the conventions of the International Labor Organization.

The United Nations Charter, which was ratified in 1945, has two general sections that lay the framework for broad treaty provisions in the field of health.

Article 55 provides in part: "The United Nations shall promote solutions of international economic, social, health and related problems."

(Continued on Page 42)

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New and Nonofficial Remedies: A.M.A. Council on Pharmacy and Chemistry, J. B. Lippincott, p. 243, 1953.

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N. Y. Physician *31*:20 (Jan.) 1949.

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Why the "Bricker Amendment" Is Important to the Medical Profession

(Continued from Page 38)

Article 56 provides that "all members of the United Nations pledge themselves to take joint and separate action in cooperation with the organization for the achievement of the purposes set forth in Article 55."

Agreements and treaties negotiated pursuant to these provisions could fundamentally change medical practice in this country if ratified by two-thirds of the Senate present and voting.

The second example deals with a series of friendship treaties that were before the Senate this past year. These include treaties with Denmark, Holland, Israel, and Greece, which dealt with immigration quotas, citizenship requirements, and matters of professional licensure in the various states. If these treaties had been ratified as originally prepared, some of the requirements of the state medical licensing boards would have been abrogated.

The International Labor Organization, an affiliate of the United Nations, in June 1952 adopted a convention known as the "Minimum Standards of Social Security." This convention includes almost all of the socialist medical proposals that have until now

(Continued on Page 46)

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Why the "Bricker Amendment" Is Important to the Medical Profession

(Continued from Page 42)

been rejected by the Congress. If this convention is ratified under the existing provision of our Constitution, government control of medicine will have been achieved. Because of the danger of the socialization of medicine via international treaty, the American Medical Association favors a redefinition of existing treaty-making powers.

The exact wording of a suitable amendment is a matter for constitutional lawyers to determine, not for physicians. The House of Delegates of the American Medical Association recognized the impropriety of an action to endorse the wording of any specific bill and therefore endorse the principles embodied in Senate Resolution No. 1. Whether modifications of that resolution achieve the objectives sought is primarily a legal issue. Certainly the interest of the medical profession in this historic and constitutional controversy is wholly proper. The action of the House of Delegates was based on careful study, the resolution adopted temperate and reasonable.

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Gastroenterology, Two Weeks, May 17.
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Q. Is cobalt cumulative?

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1. Cass, L. J.; Frederick, W. S., and DiGregario, S.: Journal-Lancet *51*:73 (1953).
2. Rohn, R. J., and Bond, W. H.: Jnl.-Lancet *73*:317 (1953).
3. Berk, W., et al: New England J. M. *240*:754 (May) 1949.
4. Berlin, N. I.: J. Biol. Chem. *187*:41 (1950).

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President Eisenhower has announced that later in the session Congress will be asked to set up a program of contributory medical care and hospitalization insurance open to all federal employees, and supported in part by an annual contribution of about $50 million from the U. S. government. Payroll deductions, presently forbidden under federal law, would be authorized. The plan is reported to include these other points: (1) The government and the employee to share equally premium costs up to $25 per year per employee, with the latter paying all costs above that figure. The employee would have his choice of hospitalization, surgical care and medical care, or all three, for himself and his family, but the U. S. contribution would not exceed $12.50. (2) Private insurance groups—Blue Cross and Blue Shield, White Cross, and cooperative group health plans—would handle the insurance. There would be no set formula, but details would vary among departments and geographic areas. The administration also is proposing that Congress authorize federal contributions toward life insurance policies for U. S. employees.

—A.M.A. Washington Letter

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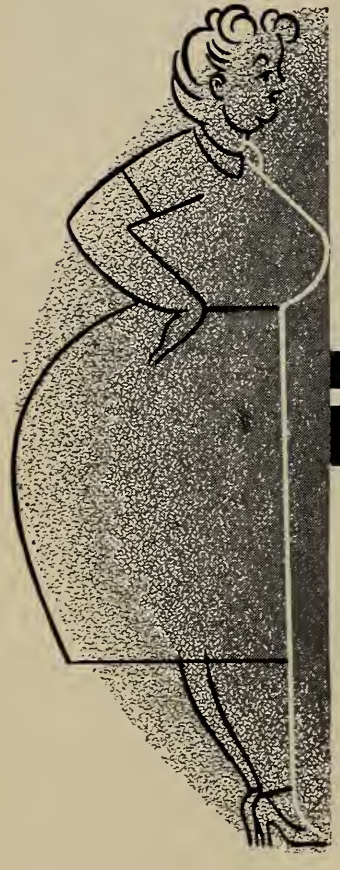

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1. Buxton, C. L., and Vann, F. H.: New England J. Med. 236: 536, 1948.
2. Cushney, A. R.: Textbook of Pharmacology and Therapeutics, ed. 10, Philadelphia, Lea & Febiger, 1943, pp. 436-437.

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No Beneficial Effects from Gamma Globulin

Gamma globulin inoculations have demonstrated no beneficial effects, a Public Health Service-sponsored committee of experts announces. The group, after evaluating nationwide data on last summer's inoculations, reports that: (1) Observation of communities where mass child inoculation was carried out does not provide sufficient evidence to determine the efficacy of the serum in preventing the disease or alleviating its effects. (2) Mass inoculations usually occurred after the epidemic peak, thus reducing evidence of its effect on the epidemic. (3) Family-contact administration of the serum (where all household members were inoculated immediately upon recognition of a polio case) did not appreciably lessen subsequent family incidence of paralytic polio. (4) Inoculation of exposed persons caused no measurable difference in the severity of ensuing paralysis. (5) More experience and greater opportunity for scientific investigation are necessary for proper evaluation of gamma globulin in mass inoculations. The group, composed primarily of phy-

(Continued on Page 54)

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*Steigmann, F., and Goldberg, E., J. Lab. & Clin. Med. *42*:955 (1953).

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No Beneficial Effects from Gamma Globulin

(Continued from Page 49)

sicians, made its findings public after a three-day session at the PHS Communicable Disease Center in Atlanta, Ga.

Spokesmen for the Health Resources Advisory Committee of Office of Defense Mobilization said later that "ODM is prepared to continue administering the distribution of gamma globulin for polio next summer, provided a satisfactory plan is agreed upon. . . . But (regardless) there would seem to be no reason . . . why it could not be distributed . . . and used by doctors as they see fit."

—A.M.A. Washington Letter

New Group To Study Drug-Induced Anemias

A group to study new methods for the earliest possible reporting of drug-induced anemias and to seek ways of experimental approach to more accurate prediction of potential dangers from new therapeutic agents has been organized by the A.M.A.

Known as the Subcommittee on Blood Dyscrasias, the group is composed of Drs. Leonard W. Larson, Bismarck, N. D., and Herbert P. Ramsey, Washington, D. C., co-chairmen; Paul L. Wermer, Chicago, secretary; John W. Green, Vallejo, Calif.; James R. Reuling, Bayside, N. Y.; Deering G. Smith, Nashau, N. H., and William D. Stovall, Madison, Wis.

—The A.M.A. Secretary's Letter

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Acute Myocardial Infarction

A Discussion of Certain Controversial Issues

HOWARD B. BURCHELL, M.D., Rochester, Minnesota

• *As a general rule, it is not believed possible to classify patients with acute myocardial infarction as to the future severity of their illness at the time of the initial examination. However, classifications are possible from complete clinical data of the first few days with regard to the predicted mortality rates. Whether to manage the patient in the hospital or at home depends on the community facilities. The patient should be in bed for a period of two to three weeks if unquestioned infarction has occurred.*

The main avenue of investigation as to lowering of mortality needs to be directed toward the prevention of heart failure or sudden unexpected death probably related to arrhythmia. If the patient is hospitalized and laboratory facilities are available, anticoagulant therapy can be safely and effectively carried out without undue risk or prohibitive increase in the cost of management. The experience of the author and his colleagues has led to the belief that anticoagulants given routinely to patients with myocardial infarction are effective in decreasing the incidence of thromboembolic complications.

THE DETAILS IN MANAGEMENT of patients with acute myocardial infarction have been promulgated more exactly and stereotyped to a greater degree than the variations of the actual illness should allow. The controversial issues which are to be mentioned are often quantitative rather than qualitative, and it is important to recognize that the best treatment in one geographic location may not necessarily be the best in another.

Some of the problems that are in dispute, some with vehemence, are as follows: (1) classification of the severity of the attack at the time of the initial examination; (2) whether hospitalization or home care is better; (3) the type of rest and the length of time that the patient should be restricted to his bed or room; (4) the indications for anticoagulant therapy; (5) the indications for oxygen therapy; (6) the indications for use of pressor drugs, such as norepinephrine; (7) the indications, if any, for transfusion and (8) the indications for use of special medication, such as atropine, papaverine, aminophylline, procaine amide hydrochloride (Pronestyl), quinidine and digitalis.

Each one of these issues could be debated at some length but this presentation will deal mainly with the present controversies concerning the period of rest and the anticoagulant program. Some of the difficulty that has arisen concerning these two factors has been due to lack of specific objectives in

Read at the 24th Annual Postgraduate Symposium on Heart Disease of the San Francisco Heart Association, San Francisco, October 28-30, 1953.

From the Section of Medicine, Mayo Clinic and Mayo Foundation. (The Mayo Foundation is a part of the Graduate School of the University of Minnesota.)

the treatment of acute myocardial infarction, lack of recognition of the natural variations of the disease, and the limitations in modifying it.

First on the agenda, then, should be reconsideration of the major goals in the management of acute myocardial infarction and examination of each objective in the light of any possible beneficial modification by specific medication or measures. Some of the basic problems to be outlined may appear to some readers as trite and so simple as to have been accepted as obvious. However, they need to be considered anew in the light of present-day advances. The first objective of treatment of acute myocardial infarction is to prevent death; for this it is necessary to know the types of death in acute attacks. The second aim is to prevent prolongation of the illness; for this it is necessary to know the nature and incidence of complications. The third objective is to assure the least possible residual cardiac damage after recovery; for this it is necessary to know the course of patients who have recovered. The fourth goal, a corollary to the third, is to insure the best chance of the patient's being employable or being happy in retirement; for this it is necessary to know the follow-up results in a large series of patients and the exact details of their illness and management.

Deaths in the Acute Attack or Ultimate Fate of Patients

From a recent study[10] of deaths from acute myocardial infarction in cases in which postmortem examinations were carried out, it was found that approximately half of the patients died with the clinical picture of heart failure. "Sudden death"—that is, unexpected and without premonitory distressing symptoms or any pathologic condition to explain it exactly—occurred in approximately a quarter of the cases. Rupture of the heart occurred in 15 per cent of the cases and thromboembolic phenomena were the main cause of death in six per cent. The nature of the heart failure, when present, could be roughly classed into the various types depending on whether the evidence of systemic venous pressure or pulmonary congestion was more pronounced. Thus, predominant right heart failure had been present in a third of these cases, predominant left heart failure in a third, and combined heart failure in a third.

The ultimate fate of persons who have recovered from one acute myocardial infarction also has been analyzed.[1] A series of 250 such patients has been studied; nearly a third of them died from primarily non-cardiac conditions. It is possible, however, that the cardiac lesion may have contributed to their end. In those who died primarily of heart disease, the essential problems were those of congestive heart failure, sudden (that is, relatively unexpected) death or death from recurrent acute infarction.

Hence it may be observed that two of the main problems in the treatment of the acute attack are related to the inadequacy of the measures that are available for the prevention of heart failure or sudden death.

Closely related is the problem that has faced the medical profession since the introduction of anticoagulant therapy. This is the proper evaluation of the importance of thromboembolic complications in the fatal cases. In the first studies from the Mayo Clinic[13] on this problem thromboembolism seemed to have a significant influence on the mortality rate. In a recent study[1] it was noted that thromboembolism accounted for six per cent of the death from acute myocardial infarction. All the patients in this group who died of thromboembolism either had received no Dicumarol (dicoumarin) because they were admitted to the clinic late after infarction or because they came from a mental hospital where the infarction was not recognized, or had received Dicumarol for less than two days.

Hospital or Home Care and Rest

Of the general problems in care of the patients with acute myocardial infarction, the first to arise is: Should patients with myocardial infarction be treated at home or in the hospital? It is my belief that either program may be acceptable, one or the other method being the more preferable in individual communities. It is important to emphasize that the prognosis cannot be adequately estimated when the patient is seen in the first hours of pain. In the community in which the author practices, practically all patients are treated in the hospital, and there seems to be no real danger in transporting them short distances to the hospital. This practice of early hospitalization undoubtedly facilitates the anticoagulant program. Hospitalization might be said to be not only convenient to physicians but to permit them to direct the management of a larger number of patients. While economically hospitalization of patients would appear less desirable than rest at home, balancing factors to be considered are the availability of nursing care in the hospital and the fact that the patient's course can be followed much more closely and more time spent with him in discussion of his problem after the acute distress has disappeared. The period I recommend varies greatly from three to five weeks, depending on the presence or absence of complications and the home environment to which the patient will return. If a hospital that is well staffed with nurses and residents is not not available, then in many cases it is preferable to treat patients in their homes, particularly if the home environment is more conducive to rest and relaxa-

tion (perhaps through such factors as air conditioning) than the hospital. Many patients undoubtedly feel better and convalesce more satisfactorily away from the family, but others do not.

The objective of rest in the management of acute myocardial infarction should always be relaxation and protection against environmental stresses, both physical and psychic, and not simply rigid confinement to bed. For many years no patient in a Rochester hospital has had to struggle with a bed pan. If patients have difficulty using the pan while reclining they are permitted to sit up on the side of the bed or use a bedside commode. Patients have always been permitted to have their beds elevated to the most comfortable position and to feed themselves.

The abuse of rest in bed has been well outlined, but the pendulum has swung too far away from it in my opinion, which is based on appraisal of reports such as that of Levine and Lown[9] on "Armchair Treatment of Coronary Thrombosis." These authors emphasized that careful early ambulation has had no ill effects. When they stated that traditionally patients were placed *flat* in bed for three to six weeks, it is perhaps overstating the degree of restrictions that are applied generally in practice. The armchair per se offers no advantage with regard to morale as compared with a good general attitude on the part of the attending physician and the nurses.

After the first ten to fourteen days of rest in bed if everything has gone smoothly, I like to discuss with the patient the unit area program, or the expanding microcosmos. I emphasize that he is first in bed, then in the environs of the bed, including the chair, then in the room and an adjoining bathroom, and gradually is able to take expansion into the world in general.

One problem that concerns me greatly is that I do not know what happens to patients who do not receive any of the traditional methods of therapy, except that many seem to get along exceptionally well. In a recent study of cardiac aneurysms, Phares, Edwards and I[15] found, as others have also, that less than a quarter of the patients had a period of rest during the acute attack. Whether or not any peculiar selection of the cases would render any conclusion from these figures void is conjectural. It is to be remembered that cardiac aneurysm is not necessarily associated with a short life, and exercise did not have a detrimental effect on the survival of rats with myocardial infarction resulting from ligated coronary arteries.[22]

Although the title of the article by Levine and Lown implies that the diagnosis of coronary thrombosis can be made, it is well known that a better diagnosis is myocardial infarction. The figures which my colleagues and I[11] collected are similar to those of others and indicate that in approximately two-thirds of the patients who have acute myocardial infarction an acute coronary occlusion is the cause of the infarction and in one-third there is no acute occlusion, only narrowed coronary vessels.

Problems of Anticoagulant Therapy

To return now to the problem of thromboembolism in acute myocardial infarction: In 16 per cent of a series of 210 fatal cases of acute myocardial infarction in which postmortem examinations were performed, Miller, Jordan, Parker and Edwards[12] found pulmonary emboli. Of the patients who had pulmonary emboli, one-third had shown no clinical evidence of congestive failure and two-thirds had clinically evident congestive failure. In 23 per cent of these same 210 cases (studied from the old tissue before anticoagulants had been utilized) systemic emboli[8] were found. Systemic emboli were about twice as common in cases in which mural thrombi were demonstrable as in those in which thrombi were absent, about twice as common when heart failure was present as when it was absent, and they were held to be the immediate cause of death in approximately four per cent of cases. Such figures indicate that thromboembolism was definitely a problem in patients who died from acute myocardial infarction and give further evidence that anticoagulant therapy was one avenue of attack that might lower the incidence of death.

The objectives of an anticoagulant program are as follows:

1. Anticoagulant therapy may be used to prevent mural thrombi and systemic emboli. This may be a possible effect of anticoagulant therapy but it is now known that mural thrombi may be present in patients who have been treated with Dicumarol. Perhaps such thrombi originated before the therapy was started; perhaps not. That anticoagulants have decreased the number of systemic emboli displaced from the left ventricle seems very probable.

2. It may be used to prevent the progression of a thrombotic lesion in a coronary vessel. Although this effect has been considered possible, there has never been any pathologic proof that progressive longitudinal thrombosis often occurs in the coronary artery. It is obvious, therefore, that anticoagulants could have little or no demonstrable effect here. However, this is not a universally held opinion.

3. It may be used to prevent pulmonary embolism. If episodes of nonfatal pulmonary emboli were prevented, one factor that could contribute to heart failure might be removed. There is a probable but not established effect here. It seems definite, however, that fatal pulmonary embolic episodes may be prevented.

4. To these possible uses of anticoagulant therapy should be added their use to exert the beneficial properties of the anticoagulants not related to the anticoagulant effect per se, that is, coronary vasodilatation or thrombus lysis. There is, however, as far as I know, only suggestive evidence of such effects in human beings.

As to the prevention of pulmonary embolism, an anticoagulant program has a real chance of success. As a comparative problem, it is of interest that of a large series of postoperative patients who were thought to have a higher potentiality for the development of this complication, none had fatal pulmonary embolism[3] after use of anticoagulants. In 352 cases of postoperative venous thrombosis that were treated by Dicumarol, not a single fatal pulmonary embolus occurred. On the basis of past experience, 20 deaths might have been expected had anticoagulants not been used. Of 329 patients with nonfatal pulmonary emboli treated by anticoagulants, one died of pulmonary embolism after the prothrombin time had returned to normal. On the basis of past experience, 60 deaths from pulmonary emboli might have been expected had anticoagulants not been used.

In the initial survey of the effect of Dicumarol carried out by Parker and Barker[14] at the Mayo Clinic, the incidence of pulmonary embolism and of fatalities was found to be decreased. The American Heart Association Committee for Evaluation of Anticoagulants in Treatment[23] reported that its study showed beyond doubt a decrease in death rate and and in thromboembolic complications in the treated group. The significance of the figures obtained by the committee in respect to possibilities of selection and interpretation have met with much discussion, including editorial comment.[6, 17, 19] It is well to point out that in studies made at the Mayo Clinic by my colleagues and me, prevention of fatal pulmonary embolism by use of anticoagulant therapy was thought worth while, even though it might prevent only one out of twenty expected deaths, or save one patient in a hundred with acute mycardial infarction.

Since criticism has been directed at the routine use of anticoagulants in myocardial infarction, careful study of the objections to it is important. Some of these objections are real indeed and are due to hazards which should not be overlooked by any physician embarking on the program.

The possibility of general hemorrhagic complications of significance cannot be disregarded, particularly in the case of patients who have associated liver disease or peptic ulcer or are aged and in a poor nutritional state. I think, now, that in years past peptic ulcer has been overemphasized as an absolute contraindication to anticoagulant therapy, and that in the absence of recent established bleeding, anticoagulant therapy may be administered.

In general, patients with acute myocardial infarction who have been treated with Dicumarol have been more easily managed than postoperative patients, as the danger of bleeding is so much less. In the past five years, however, in our group no death from hemorrhage has occurred after operations.[2] Besides the dangers in general of bleeding, the possible and theoretic cardiac dangers of anticoagulant therapy that have been mentioned are: (1) increased likelihood of myocardial rupture, (2) development of hemorrhagic pericarditis or (3) bleeding into walls of the atheroma in the coronary vessel. The incidence of myocardial rupture in our fatal cases has been between ten and fifteen per cent over the years and has not increased since anticoagulants have been used. We have been concerned because we have seen hemorrhagic pericarditis[4] in two cases, but we also have seen this in one case in which anticoagulants were not employed.

Another objection to anticoagulant therapy is the serious accusation that the usual program is ineffective, due, as Schnur[21] claimed, to "the universal difficulty of maintaining constantly effective prothrombin blood levels." Some published results indicate that the program in some centers may have been ineffective. Incidentally, even after ten years of use of anticoagulant therapy at the Mayo Clinic, we cannot come to a definite and exact conclusion as to the optimal and minimal effective levels of prothrombin activity or as to whether intermittent therapy could be of value as well as continuous therapy.

Without question anticoagulant therapy is less easy when the patient is treated at home or in a small hospital, but it is still quite practicable. It is obvious also that this program adds to the cost of therapy both directly and indirectly. But this seems a minor problem. The cost of Dicumarol itself is small, which is one important reason Dicumarol is preferred over heparin. Ethyl biscoumacetate (Tromexan) is approximately seven times as expensive as Dicumarol but I usually give it on the first day of anticoagulant therapy in a dose of 1,200 to 1,500 mg. along with the initial dose of 200 to 300 mg. of Dicumarol. In general, it has seemed best to use in practice the anticoagulant with which one has had the greatest experience. Investigations[20] have indicated that Dicumarol and Tromexan may have equal efficacy in the prevention of thromboembolic complications but I cannot concur that the latter has been established as a better and safer drug.

Some of the articles criticizing the anticoagulant program have approached it from the statistician's point of view. Others are worded like lawyer's briefs, as if in defense of those physicians who might not use it or resent a central authority's exerting pressure on them in methods of practice. Still others

approach the problem carefully to try to evaluate the general applicability of the method in clinical practice. Russek and associates,[16, 18] Furman and associates[7] and Schnur[21] have spent considerable effort attempting properly to evaluate this method of therapy; they have attacked particularly the idea of routine use as against selected use. The aim of such studies is creditable indeed. Of some interest are the replies from a group of physicians that Russek and Zohman[16] published. Half of the physicians who replied said they used it routinely, and the drug was used, either routinely or with clinical selection, by 90 per cent of those who answered.

In order to obtain some data on whether anticoagulant therapy decreased prothrombin activity adequately, I asked Berkson of our statistical section to go over the records of all the patients with myocardial infarction who had been given anticoagulants in a single year (1951) and to chart the prothrombin time after the first 48 hours (Chart 1). The actual distribution of prothrombin times shows that, of the approximately 1,000 observations, less than ten per cent were in the ineffective range and less than five per cent in what has been defined arbitrarily as the potentially dangerous range. None of the patients in this group had a hemorrhagic complication. I believe that this is satisfactory but that we can do better.

In our laboratory a prothrombin time of 60 seconds is indicative of prothrombin activity of 10 per cent of normal; 35 seconds, 20 per cent of normal;

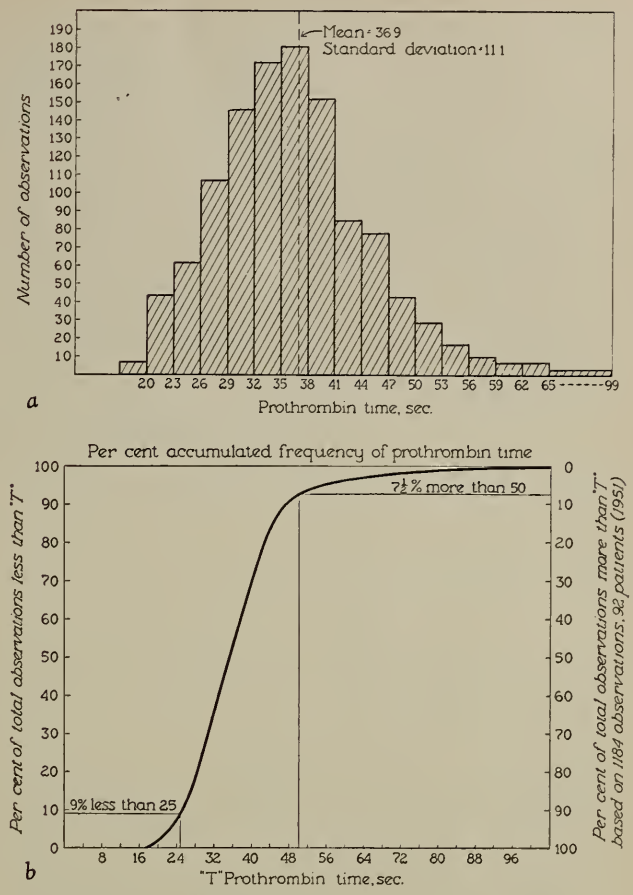

Chart 1.—(a) Distribution of prothrombin times in 92 consecutive patients treated with Dicumarol (omitting first two days of treatment). (b) Same data as in (a) charted as an accumulated frequency curve.

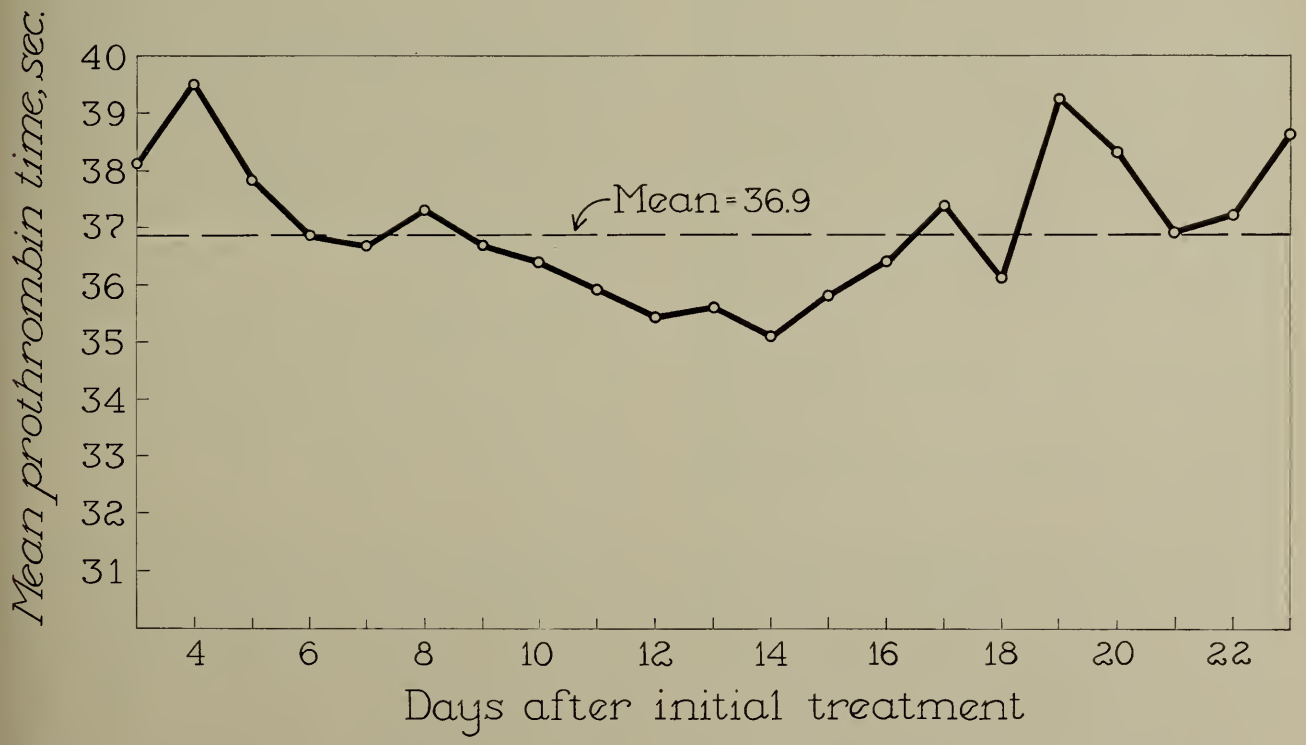

Chart 2.—Mean prothrombin times of the 92 patients with acute myocardial infarction treated with Dicumarol on the various days of their illness, 1951.

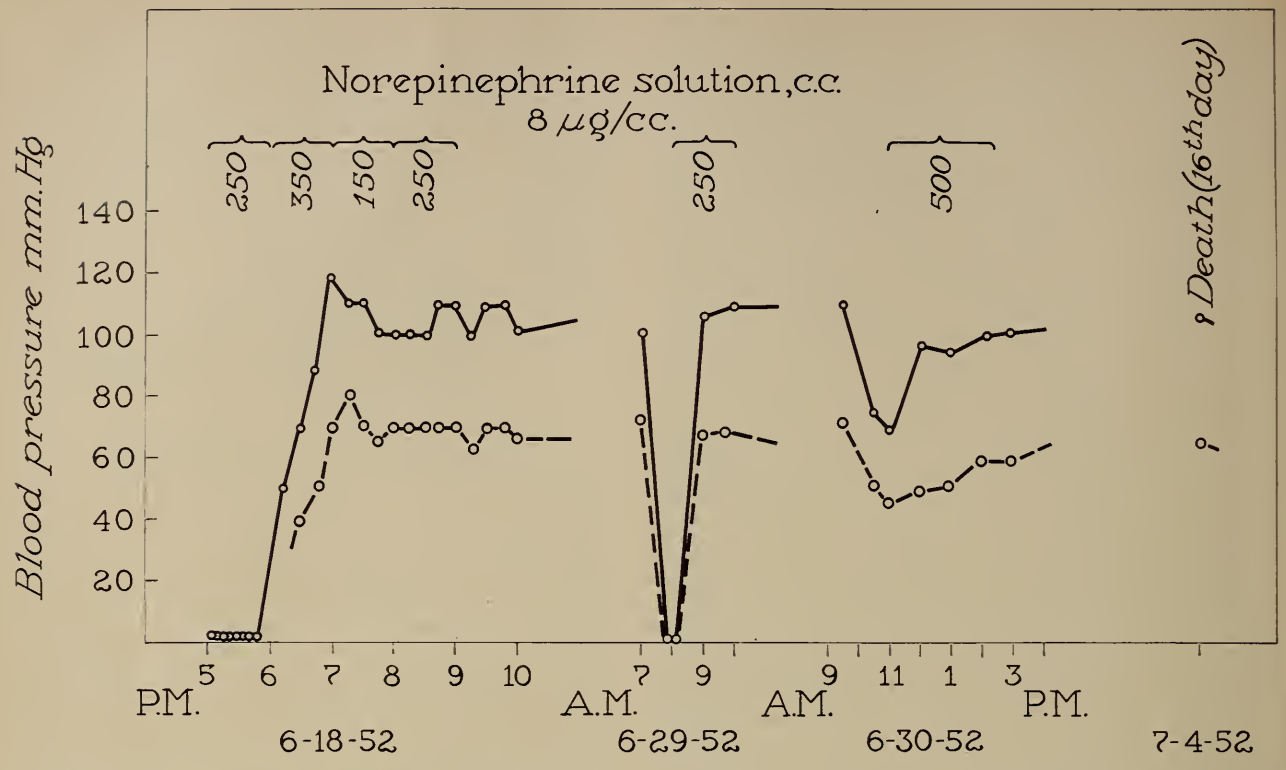

Chart 3.—Blood pressure response to norepinephrine in case described in text. The maintenance of a good urinary volume is of particular importance as well as the response in blood pressure and general condition of the patient.

27 seconds, 30 per cent of normal. Our arbitrary goal is to maintain the prothrombin time between 27 and 60 seconds or a prothrombin activity between 10 and 30 per cent of normal. The average or mean patient of the group of 92 was well treated (Chart 2). The ease with which an anticoagulant program is controlled will be directly related to the intelligence and experience of the resident physicians. It usually is related also to a simple concept that, when Dicumarol is being given, the physician has to think 48 hours ahead with regard to the effect of the dose and arrange the dose in regard to a rising or falling prothrombin time as well as to the particular level at the time. Although the statistician undertook the study to see what the prothrombin times were, it was believed of interest to review the records in the 92 cases with regard to deaths. Nine patients (10 per cent) died. Postmortem examinations were performed in seven; no pulmonary embolus, peripheral embolus, or hemorrhagic complication was found.

In the series of fatal cases, already mentioned, studied by McQuay, Burchell and Edwards,[10] approximately the same incidence of mural thrombi was encountered when the patients had been treated by Dicumarol as when they had not been. However, none of the 16 patients with mural thrombi had gross systemic emboli. Either the clinical or postmortem records indicated heart failure in all but two of the sixteen cases. On review of the fourteen cases in which the acute infarction could be accurately dated and in which there were adequate anticoagulant management and mural thrombi, all had large infarcts. The duration of life after the clinical onset of infarction averaged 15 days (range 5 to 26), and duration on treatment with Dicumarol averaged 13 days (range 4 to 26). One patient only had had heparin the first 36 hours following admission on the first day of the infarct. Scarrone and associates[20] found a mural thrombus in only one of their ten cases in which anticoagulant treatment was employed and postmortem examination was performed.

Oxygen Therapy

Oxygen therapy is of limited value, but its use is indicated if the patient has pain or dyspnea. In other words, cyanosis or even a laboratory finding of lowered oxygen saturation is not needed before such therapy is instituted. A mask is used if tolerated; otherwise, a tent.

Indications for Use of Drugs and Transfusion

In cases of shock it is believed that Arterenol (norepinephrine) is being almost universally accepted as of value even though it will take a long time to establish statistically that this drug has any lifesaving property. As a case in point, I might mention an obese diabetic patient who was brought to the hospital after being in shock for five hours. He was considered moribund in the admitting room.

Arterenol was given and the blood pressure rose and was readily maintained. The patient had two additional episodes of shock with very low blood pressure (Chart 3) and each responded to this treatment. The urinary output was important as an indication of cardiac output's being probably maintained at adequate levels. Death occurred suddenly on the sixteenth day. An extensive anteroseptal infarction was present. A thin mural thrombus was present but no emboli could be found.

Since pressor agents are available and can be given rather simply, transfusions are not indicated. It is agreed that an arterial transfusion would be ideal in a shocklike state and we have used it, but it is difficult and the problem lasts for much too long a time for this to be continuously effective.

Morphine is used freely for the relief of pain and apprehension, particularly in the early stages of acute myocardial infarction. In the presence of pain and absence of hypotension, Aminophylline (0.5 gm.) is sometimes given intravenously. When extrasystoles appear, quinidine or Pronestyl is used. Quinidine is still preferred over Pronestyl. With the knowledge that sudden death accounts for such a large number of deaths, my colleagues and I have wondered whether we were not making a mistake in not giving quinidine routinely. We do know it often can modify the number of extrasystoles or abolish them once they have appeared and on this basis many patients do receive quinidine (usually 0.2 gm. every four hours). One might assume that if the sudden death were related to arrhythmia, then quinidine should be given routinely. A recent study by Cutts and Rapoport,[5] however, indicates that it probably is ineffective.

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*It is obvious that only a very few references could be mentioned, and the emphasis has been placed on personal experience and the observed investigations at Rochester, Minnesota. Since this paper was presented, additional papers have been added to the rapidly growing volume of work, among which is the review given by Wright, I. S., Beck, Dorothy F., and Marple, C. D.: Myocardial infarction and its treatment with anticoagulants: A summary of the findings for 1,031 cases, Mod. Concepts Cardiovas. Dis., 23:208-212, Jan. 1954.

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Current Views on Genitourinary Tuberculosis

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• *Tubercle bacilli are spread by the blood stream to the kidney in miliary fashion from the primary pulmonary lesion. Activation, followed by arrest, may delay development of the disease in the kidney for many years or "healing" may occur. Renal ulcerative lesions are the most frequent source of infection of other genitourinary organs.*

In pyelograms there is no particular characteristic of lesions of tuberculosis. Cellular elements in the urine of a patient with tuberculosis of other organs should lead to urine culture and guinea pig inoculation for mycobacterium tuberculosis.

Treatment with streptomycin, isonicotinic acid and/or para-aminosalicylic acid should be started as soon as genitourinary tuberculosis is proved. Patients with advanced lesions usually receive great benefit from these medications; even though organisms may not be eliminated they are definitely diminished in activity. Excision of diseased organs or tissue may be necessary in a few cases.

REMOVAL of any genitourinary organ affected by tuberculosis is seldom warranted. This statement is diametrically opposed to the opinions expressed by many experienced urologists before certain antibiotics and other therapeutic agents were found to be effective against B. tuberculosis. Thomas first advanced the thesis in 1927 that minute renal tuberculous lesions may heal,[16, 17, 18, 19] but his critics were emphatic on the necessity of removing tuberculous organs.

Medlar has developed the concept over the past thirty years that tuberculosis invades the kidneys through the bloodstream and that many of the metastatic lesions undergo a healing process.[8, 9] Most of his contemporaries insisted that healed lesions were never evident at necropsy, but they were referring to gross caseocalcific lesions, while Medlar's data—collected in vast amount from Bellevue Hospital—prove that microscopic cortical lesions heal. Medlar stated that in 98 per cent of cases with miliary renal foci the disease is bilateral, but when the disease has advanced to ulceration of the renal papilla the proportion of bilateral infections is diminished to 60 per cent, since the other kidney has healed in the meantime.

Wildbolz did not accept the premise of bilateral invasion, and even contended that a normal kidney might filter bacilli. In 1938 he reported that 60 per cent of patients treated by him recovered after nephrectomy but did not comment on the possibility that failure in the other 40 per cent of the cases may have been due to tuberculosis of the remaining kidney.

Hugh Young was the leader in America in urging that all tuberculous genitourinary organs should be removed for the best possible recovery and increased life expectancy. Reports of data from Seaview Hospital in New York, however,[4, 10] not only contradicted the belief that the remaining kidney will improve after nephrectomy but indicated that the disease progresses more rapidly in the remaining kidney.

PATHOGENESIS

Some of the conflict in the statements cited is due to the fact that many of them are incomplete.

No tuberculous lesion can be considered "healed"; reactivation is possible whenever any of the many protective mechanisms is disturbed. The primary complex consists of a pulmonary parenchymal lesion with involvement of associated lymph nodes.[1, 5] Local secondary progression from the focus may occur but is unusual; miliary spread through the bloodstream leads to the development of allergic sensitivity to the organism. If bacilli are disseminated from the pulmonary lymph nodes or from an activated parenchymal lesion to the renal capillaries, glomerulitis may result, and then arrest or "healing" may follow. Cellular elements are not detectable in the urine until the disease has extended to the tubule and ulceration has occurred. Eventually, through this ulceration or through lymphatic extension, the medulla and the renal papilla are reached, probably in showers of reinfection and stages of reactivation. Positive findings may be obtained on urine cultures, and later followed by negative results.

Increasing activity with ulceration and caseation may occur in any part of the kidney. One or more calyces may be obliterated by reaction fibrosis, or

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bacterial invasion of the pelvis and ureter may cause increased dilation and constriction and autonephrectomy. Calcium salts are deposited slowly.

DIAGNOSIS

Periodic urinalysis should be done in every case of tuberculosis. A trace of albumin—evidence of tuberculous glomerulitis—is rarely observed, and positive finding on culture or guinea pig test is usually not obtained until erythrocytes or leukocytes are detectable in the urine. Thomas was the first to inject sediment from six specimens of urine, two of which were from 24-hour collections, into one or two guinea pigs, thus insuring a sufficient number of bacteria to cause active disease. Both culture and guinea pig tests should be made, and in the greater number of tests in each case the result will be in agreement. American Trudeau Society media No. 1 and No. 2 and the Lowenstein modification should be used for each specimen. If fewer than ten colonies develop on a Petri dish it is likely that infection will not develop in the guinea pigs tested with the same specimen.

The same tests should be made in chronic pyelonephritis, since other bacterial infection is evident in about a third of all cases of renal tuberculosis. Microscopic hematuria may be the first evidence of renal tuberculosis as well as of other conditions.

Hugh Cabot said that tuberculosis might be disseminated by cystoscopic examination and retrograde catheterization, but at that time the genitourinary tract itself rather than the bloodstream was thought to be the route of infection. Early in the disease there may be no dysuria or frequency, no inflammation of the ureteral orifice or trigone, and no tuberculous nodules. A test tube of urine from each kidney is not a sufficient amount for detection of slight infection. Protracted instrumentation, however, may cause great distress to the patient, and resultant bleeding may obstruct the catheters.

There is no single distinctive roentgenographic feature that is typical of renal tuberculosis. However, rarely in non-specific pyelonephritis is a focalized ulcerative deforming process seen. Retrograde pyelograms usually give much better definition of pathologic changes than do excretory urograms. Even with the best of visualization, if there is evidence of ulceration or irregularity of the calyceal margins it signifies moderate, not minimal, involvement. If the structure is dilated or distorted, advanced disease is indicated.

TREATMENT

The treatment of renal tuberculosis is still a long process in which present methods are by no means satisfactory, since caseation necrosis is irreversible.[6, 7] Regardless of what drugs are combined in treatment, the prognosis is worse with larger lesions, for limitation of the blood supply by endarteritis and obliterative thrombosis together with necrosis and fibrosis creates a virtually insurmountable barrier to vascular diffusion of any drug.

Relatively few drugs are used in present-day chemotherapy of genitourinary tuberculosis. Tuberculin, chaulmoogra esters, promin, diasone and tibione, among others, are being used to some extent.[11, 12, 14] The tubercle bacillus is a facile organism with remarkable adaptive features. It may be susceptible to a combination of therapeutic agents which act synergistically and yet are in such low concentration that bacterial resistance develops slowly.

Isonicotinic hydrazide (INH) is dramatically effective for a short time but should be used in conjunction with streptomycin or para-aminosalicylic acid (PAS) or both. Their total effect is such that reproduction, invasive features and toxicity of the mycobacterium may be altered permanently. Recent use of INH labeled with radioactive carbon has indicated a higher concentration of the agent in the dense caseous tissue than in the more fluid caseous material.[2] This activity is enhanced by diffusion into the erythrocytes and monocytes. Streptomycin is not diffused into the tissues and even less into the monocytes. The usual dosage is 100 mg. of INH given by mouth thrice daily and 1 gm. of streptomycin given subcutaneously twice a week over a period of one year. Additionally, 12 gm. of PAS may be given daily by mouth. Corper[3] expressed the belief that no therapeutic agent can eliminate the bacillus in vivo or in vitro in a shorter time. He considered these drugs to be retardants of the organism at best. Spurious conclusions have been drawn regarding the bactericidal efficacy of the drugs because the patient was clinically improved.

It is on the prospect of long-term results as well as on the experience gained from following over fifty patients that it was stated in the beginning of this article that removal of affected genitourinary organs is seldom warranted. However, increasing symptoms, persistent drainage or obvious obstructive pyonephrosis are good indications for excision of part or all of an organ.[13] In the past, perinephric abscesses were drained when both kidneys were involved, but chemotherapy should prevent abscess formation or shorten drainage time to a minimum.

The epididymis may have to be removed if recurrent abscesses form or if the area remains enlarged and painful. Removal of the prostate and seminal vesicle is seldom required.

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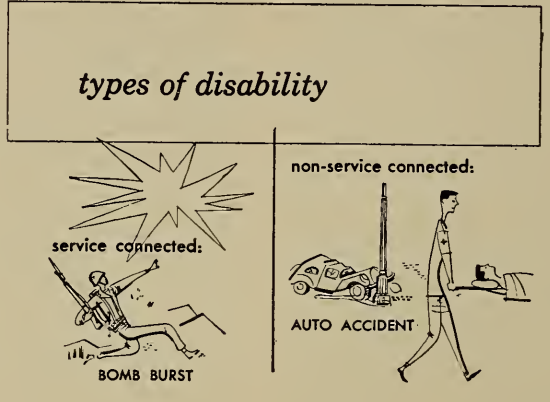
In Viewing the VA Medical Program . . .



The medical profession fully endorses and supports the medical program of the Veterans Administration through which veterans receive medical care and hospitalization without cost for illnesses or injuries incurred as a result of military service (left). It is felt, however, that the federal government should not assume the responsibility for the medical care of veterans whose disabilities are incurred in civilian life and which have no relationship to their military service.

The Postphlebitic Syndrome

A Study of Possible Factors in Subjective Disability

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• *Three hundred patients with the post-thrombophlebitic syndrome were studied. The lower extremities were involved in the majority of cases. Severe disabling subjective symptoms, such as burning, aching, cramping and shooting pains, occurred in approximately 15 per cent of cases regardless of the presence or absence of objective findings such as ulcerations, edema or dermatitis. Subjective symptoms occurred in about as many men as women. The persistence and severity of disabling subjective symptoms seemed to be unrelated to the possibility of compensation or pecuniary gain. No adequate explanation could be found for the perseverance of disabling subjective symptoms. There was no consistent relation of subjective symptoms and disability to psychic factors.*

AN ODDITY of the postphlebitic syndrome is that in some cases in which the objective symptoms are slight the subjective symptoms may be so severe as to be disabling, while in other cases the objective symptoms may be quite pronounced yet apparently discommode the patient hardly at all.

The syndrome, which is quite common, is known by a variety of names, the terms most often used being *thrombophlebitic syndrome, post-thrombotic syndrome, chronic venous insufficiency, lower leg syndrome* and *postphlebitic neurosis*. Although the various terms imply differing etiological delineations, the majority of the symptoms are similar. The syndrome is usually confined to the lower extremities. It follows thrombophlebitis of a deep vein, such as the iliofemoral or the popliteal, although repeated superficial thrombophlebitis might be a factor. The inflammatory process is similar to that in milk leg following pregnancy. The various objective phenomena that follow the attack of phlebitis are pigmentation, edema, stasis dermatitis, nutritional disturbances of the areas involved, with atrophy of the subcutaneous tissues, fibrosis, recurrent attacks of phlebitis, and inflammation, cellulitis and ulcerations. Evaluating the objective conditions is not difficult; the symptoms that are difficult to evaluate—and that may cause considerable disability—are subjective in nature. *Postphlebitic neurosis* would seem to be the aptest term for them. There is a great variety of subjective sensations such as burning, numbness, pains, tingling, paresthesia, weakness, aching and cramping in the affected extremity, and often there is little correlation between the subjective symptoms and the objective findings.

To gather data that might bring understanding to this perplexing situation, a study was made of diverse groups of patients who had various objective and subjective symptoms that were considered residual from phlebitis. Particular attention was given to what effect the prospect of compensation claims or legal actions for damages might have on the severity of subjective symptoms.

Three hundred patients, divided into three groups of 100 patients each, were studied. One group was made up of patients admitted consecutively to the Peripheral Vascular Clinic of the Cedars of Lebanon Hospital, another of patients treated under insurance for occupational injury and the third comprising patients who were not industrially injured and who were treated in private practice. A small number of the patients in the latter group were involved in litigation resulting chiefly from automobile accidents and negligence of others. There was no element of compensation or litigation in the clinic group. The length of time since the acute thrombophlebitic stage in the cases studied ranged from a few weeks to as long as 20 years.

A rather high proportion of the patients were women. In the industrial group there were 60 males and 40 females—an inordinate number of women, considering the high proportion of males in industry. In the nonindustrial private practice group there were 74 females, and in the clinic group 84 females. None of the patients in the industrial group was more than 65 years of age, which was to be expected in view of the fact few elderly people are employed in industry, but patients as old as 85 years were treated in private practice.

The percentage of patients with uncomfortable and even disabling subjective symptoms was ap-

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proximately the same in the three groups studied—about 15 per cent of each group—and there were about as many men as women. For practically every industrially incurred case of post-thrombophlebitic syndrome with severe, disabling, subjective symptoms, a nonindustrial case could be found to match it regardless of whether there was or was not an element of compensation or cash settlement that might be involved. The following cases are illustrative:

Case 1. Bilateral iliofemoral thrombophlebitis developed in a salesman 30 years of age following operation for industrially incurred bilateral inguinal hernia. Upon examination 20 years later it was learned that for the entire intervening period he had been suffering from a great variety of disabling symptoms, such as burning, shooting pains, itching, aching, weakness and cramping of both lower extremities. The aching and cramping disturbed his sleep. He could not keep his legs in the dependent position for more than ten minutes. Within a minute or two of dependency, burning, aching and sharp shooting pains in both legs and feet would appear. These would become increasingly severe, and at the end of ten minutes he would have to elevate his legs or walk about. As a result he had not been able to go to a restaurant or a theater. He stated that it had been impossible for him to lead a normal existence for years. Frequently he had tried to return to work but had never been able to continue more than a few days at a time. He was examined late in the afternoon, after he had been ambulatory for many hours. A few small collateral varicosities were present. The edema of the legs was minimal. There was considerable tenderness on finger pressure over the tibial surfaces. The feet were cyanotic when in the dependent position. Pigmentation was present about the lower legs. The skin was warm. The peripheral arterial circulation was normal.

The patient had been receiving compensation for over 20 years. His wife worked, as the compensation was not sufficient to support both. There were no children. There was no doubt of disability. The patient was intelligent and cooperative, had insight and apparently a stable personality, although after twenty years of disability some personality changes probably had taken place.

Case 2. The patient, an unmarried male physician 52 years of age, had had bilateral iliofemoral thrombophlebitis following an operation for varicose veins several years previously. There was no question of compensation litigation, or monetary gain. The subjective symptoms were burning, tingling and shooting pains in the legs and feet when they were dependent more than a few minutes. Cramping and aching in the legs, especially at night, occurred frequently, and these symptoms were severe if the patient had been on his feet for prolonged periods during the day. Edema was slight and well controlled with elastic bandages. The patient said that it was becoming increasingly difficult for him to appear in public, as at restaurants or the theater, where he would have to sit for periods of more than ten minutes, owing to the discomfort that developed when the legs were dependent. There was pronounced tenderness over the tibial surfaces. Changes in the skin were minimal. Evidence of adequate collateral venous circulation was appearing. The peripheral arterial circulation was normal.

The patient was intelligent and had no apparent emotional or adjustment problem. No explanation could be found for the severe subjective symptoms. The objective findings were minimal.

In many cases in the present series, the patients made little complaint even though objective symptoms seemed severe. The following cases are illustrative:

Case 3. A truck driver 41 years of age who did heavy labor received a fracture of the pelvis in a truck accident. Unilateral iliofemoral thrombophlebitis developed while he was in hospital. Upon examination a year later, pronounced pitting edema, extending from the ankle to the groin, was noted. Redness, heat, stasis induration and eczema also were observed. The patient complained only of a slight heaviness and aching in the leg after a day's work. He had no disability and had lost no time from work since his discharge from the hospital.

Case 4. A business executive 62 years of age was walking on the sidewalk when he was struck in the leg by a piece of lumber that fell from a moving truck. Iliofemoral thrombophlebitis developed. He was observed several months later because of marked edema and inflammation of the leg. He complained only of "heaviness" of the leg. Although the edema was considerable and poorly controlled and even though the patient had to change his routine of life considerably owing to the necessity of elevating the leg at frequent intervals, he was not interested in legal action for damages despite the fact he seemed to have incontrovertible grounds.

Two cases in which the postphlebitic syndrome occurred in the upper extremities were observed. The patients were women and in both instances the cause was industrial accident. In one case the objective findings were obvious and subjective disability was slight, and in the other the converse was true.

Case 5. The patient was a 30-year-old white divorcee who supported her two children by working as a sealer in an aircraft plant. Swinging down from the crew's quarters of a plane, the patient strained her arms and the right arm became swollen and inflamed. A thrombus was removed from the axillary vein. The edema, discoloration and inflammation slowly subsided. The patient returned to work six months later.

Seven months after the injury, increases in linear measurements were noted, the surface temperatures were elevated and there was enlargement of veins

over the anterior chest wall and the affected extremity. The only subjective symptom was complaint of slight aching and discomfort on dependency or prolonged effort. The patient resumed her previous work without complaint or loss of efficiency.

CASE 6. The patient, a white woman 39 years of age with one child, had worked as a saleswoman at the same store for eight years without time off. Leaning over to pick up a cigarette package, she struck the left anterior chest wall against the corner of a counter at the store where she worked. Superficial thrombophlebitis developed at the site and quickly spread over the anterior wall of the chest, the shoulder and the arm to the hand. Superficial and deep veins were involved. The thrombophlebitis gradually subsided and when the patient was examined five months later all objective evidence had completely disappeared except for a slight fullness in the forearm and increased visibility, under infrared light, of the superficial veins of the affected area. However, the patient complained of pronounced disability and of inability to return to work. She said the extremity ached and was heavy and that there was scattered transient superficial tenderness over the arm and forearm. The aching and disability were worse when she was emotionally upset, the patient said; and she said she frequently felt like crying when she thought of her disability.

In these two cases, the patient with apparently the greatest emotional and adjustment problem had the least subjective disability. In neither case was compensation or the cost of medical treatment a factor. Both patients were well cared for by the compensation insurance carrier.

DISCUSSION

Adequate explanation for the severe subjective complaints of some patients in the absence of commensurate objective findings is lacking. Allen and Brown,[1] in discussing postphlebitic neurosis, emphasized that the condition was observed almost exclusively in women. That observation was not borne out in the present series. However, the statement by Allen and Brown that disability exists for a period far longer than can be explained on an organic or vascular basis is concurred in. Allen and Brown were of the opinion that patients with subjective symptoms being considered were in general emotionally unstable and of inadequate makeup. This was not completely substantiated in the present study. Only a small number of the patients were unstable or inadequate.

In this study no reason could be found for the perseverance of subjective symptoms, nor were phenomena observed that might help in determining prognosis. At one time it was thought that subconscious fear of a pulmonary embolus with the possibility of sudden death was a factor in focusing attention on the affected extremity. Later, however, it became apparent that many patients had no idea the disturbance was due to vascular disease. That monetary gain or compensation might be a factor likewise was not substantiated. Organic factors, such as ulcerations, eczema, localized thrombosis and tissue anoxia, could not be inculpated, for they were not present in the majority of patients who had subjective complaints.

TREATMENT

The nocturnal cramps and aching were best relieved by quinine, Benadryl (Parke-Davis) or Hydergine (Sandoz) given sublingually. DeCamp and co-workers[2] in a study of venous pressure in patients with the syndrome, noted that a number of patients voluntarily said they were completely relieved of all symptoms following venous pressure determinations alone. Sympathectomy was reported by Edwards[3] to be of no value. Operations on the veins, such as ligation and stripping, and the injection of sclerosing agents have likewise proven valueless. Use of elastic compression bandages with elevation of the affected extremity gave the greatest measure of relief. However, symptoms persisted even when edema was controlled. It was noted that the patients resisted encouragement and reassurance and were reluctant to increase physical activity.

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Occupational Aspects of Coccidioidomycosis

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• *Infections with coccidioides immitis have been frequently associated with circumstances suggesting the likelihood of occupational origin. Some cases have been accepted as compensable by insurance carriers, the Industrial Accident Commission, and the courts. The factors considered in determining whether or not infection is of occupational origin are reviewed under the following headings.*

1. Laboratory infections.

2. Other infections due to exposure to contaminated articles, arising outside endemic areas.

3. Infections in employees entering endemic areas pursuant to their occupations.

4. Primary cutaneous inoculation.

5. Localization and/or aggravation of preexisting coccidioidomycosis by occupational injury.

6. Infections in agricultural workers imported into endemic areas.

7. Infections in residents of endemic areas alleged to result from occupational exposures.

PHYSICIANS WHO TREAT PATIENTS with coccidioidomycosis may be called upon from time to time to decide whether or not a case may be of occupational origin. To make a sound decision, accurate, detailed and current knowledge of epidemiologic aspects and pathogenesis of the disease is necessary. Excellent reviews of these aspects are available.[8, 23, 26]

As to the medicolegal aspects, physicians must be guided not by personal preconceptions but by knowledge of principles and precedents in compensation medicine. Cases have been accepted as occupational by insurance carriers, the Industrial Accident Commission of California and the courts. The validity of these precedents must be weighed in the light of present knowledge concerning the disease. As Downing[6] pointed out, although medicine is constantly altering its opinions as a result of increased scientific knowledge, the courts are likely to base their findings on examples of past decisions in similar cases rather than on medical research which often contradicts these findings.

Decisions of this kind are particularly difficult with regard to cases of coccidioidomycosis in an endemic area, and each must rest on the merits of the individual instance. If the occupation exposes the worker to a risk of infection greater than that of other members of the community, ascribing infection to the nature of the occupation may be justified. Physicians should recognize that while absolute proof may be impossible, from a legal aspect it is an inadmissible concept that uncertainty of proof can ever destroy a legal right.[15] Here analogies exist with numerous other diseases including such widely different conditions as leptospiral infections[28] and cancer of the skin.[6]

The material presented is grouped in seven categories ranging from those in which assignment of occupational origin is easily made to those in which evaluation is exceedingly complex and difficult.

1. *Laboratory Infections:*

It is generally accepted that whenever a culture of coccidioides immitis on solid media is opened, all persons in the vicinity may be exposed to infection. In endemic areas, laboratory personnel are usually aware of this danger.

In a survey of laboratory-acquired infections in the United States, Sulkin and Pike[29] found record of a total of 63 cases in which the infecting agent was a fungus; it was coccidioides immitis in 49 cases, one of them fatal. An early case, cited by Tomlinson,[30] was that of a medical student who was infected while working with cultures of C. immitis in the United States. Nabarro[19] cited an instance occurring in England. Looney and Stein[13] reviewed the pertinent literature and reported a case in New England.

2. *Infections (Other Than Laboratory) Acquired Outside Endemic Areas by Exposure to Contaminated Articles:*

Skinner[24] reported the case of a worker in a wool-scouring plant in Massachusetts. He had never been in an endemic area. After sorting dusty, sandy wool from an endemic area he became ill. The illness began as a "cold" several weeks after the last exposure. Two months later the patient died of disseminated coccidioidomycosis.

The only case of coccidioidomycosis reported from Canada[16] was that of a 61-year-old white man

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with an exposure history analogous to that in the preceding case. The patient had never been out of Nova Scotia except for military service twenty years earlier.

Coccidioidomycosis in workers who handle possibly infective material, but who also live in areas where occasionally a case of coccidioidomycosis, apparently endemic, is reported, raises a more difficult medicolegal question. The following case has been the subject of a court decision:[35]

A truck driver, while working in Los Angeles, handled freight from various points of origin including oats, beans, wheat, cotton and hay from the San Joaquin Valley. His working conditions were very dusty. He contracted coccidioidomycosis, and a court held that he had contracted the disease during his employment as a truck driver in handling commodities from the endemic area.

Schenken and Palik[22] reported the case of a 35-year-old Negro man who was observed at the Charity Hospital of Louisiana with disseminated coccidioidomycosis. It seemed probable that he had acquired the disease while handling infective articles during employment within the urban Los Angeles area six months earlier.

3. *Infections in Employees Entering Endemic Areas Pursuant to Their Occupations:*

Employment is considered a causative factor when it takes the employee from a community free of a disease to another where it is prevalent. In the case of coccidioidomycosis, infections have been attributed to little more than traveling through an endemic area.[14]

Such a case was reported by Hirsch.[10] The patient was a Negro porter employed on the Santa Fe Railroad between Chicago, his home, and Los Angeles. Following a return trip from California, illness began with pleurisy as the first manifestation, and the patient died of disseminated coccidioidomycosis.

A San Francisco coffee salesman[40] was found by an award of the Industrial Accident Commission of California to have contracted coccidioidomycosis in the course of business trips made through endemic areas. The disease began with symptoms of a bad cold shortly after the man had spent two weeks on company business in an endemic area. The appellate court upheld the award, stating that proof that the disease was contracted in the course of employment need not attain absolute certainty.

A 41-year-old white crane operator[36] was hired in Los Angeles to work on a project at Muroc Dry Lake. While there he contracted coccidioidomycosis. The court held that while he was not by the nature of his employment exposed to any greater extent than any other resident of Muroc Dry Lake, he was exposed to the disease to a greater degree than residents of Los Angeles County. The disease was therefor held to arise out of employment. The court made the further statement that the disease is not endemic in Los Angeles County. Present knowledge indicates that this is not completely accurate; the disease is certainly more highly endemic in some other areas, but endemicity in Los Angeles has been proved in recent years.[2, 11, 12]

Seven of 14 Stanford University faculty members and students[5] who were exposed to dense concentrations of dust in the air while on a field trip to San Benito County contracted coccidioidomycosis. The incubation periods were between nine and 14 days. The fungus was later recovered from the soil at the site. Were the field trip incident to their teaching duties, it would seem a fair assumption that, for the faculty members, the coccidioidomycosis so incurred was occupational.

Within the last three years at least six resident physicians at the Kern General Hospital had symptomatic primary pulmonary coccidioidomycosis necessitating rest and/or hospitalization. Inasmuch as their exposure was owing to their having been engaged to come into an endemic area, the hospital accepted the condition as related to employment to the extent of continuing salaries while the physicians were incapacitated. In the case of one of the physicians, an American Indian, complications ensued from the disease and the question of compensation was referred to the insurance carrier, which rendered an opinion to the effect that the condition was not compensable. The matter was not pursued further.

4. *Primary Cutaneous Inoculation:*

Primary cutaneous inoculation as the portal of entry for coccidioidomycosis is probably very rare. In experimental animals the disease can be produced by scarification of the skin and applying a drop of pus from infected tissues. This was done by Rixford[20] in a study of the first case reported in this country.

Clinical cases of presumed primary cutaneous inoculation are cited in the older literature. Reviewed in the light of modern knowledge of the disease, however, they seem for the most part to have been instances of disseminated coccidioidomycosis with solitary cutaneous manifestations. However, the author has observed at least one case in which rather rigid criteria for the diagnosis of cutaneous inoculation seemed to be satisfied. A mortician pricked his finger while preparing a body in which evidence of a "peculiar kind of tuberculosis" was noted. A granulomatous lesion appeared at the site of injury. The clinical appearance suggested infectious granuloma, particularly cutaneous inoculation tuberculosis. C. immitis grew on cultures. In the next five

years no evidence of disseminated coccidioidomycosis appeared.[32]

A similar sequence of events was reported in another case—that of a physician whose finger became infected when he was dissecting.[4]

A report of what may have been another such instance concerns a 40-year-old man,[31] living in Kansas, who received a cut on a finger while working in a garden. The same day he used the unbandaged hand in feeding mash to chickens. The mash was a packing house product made from condemned cattle. Inflammation developed at the cut and became progressively worse. C. immitis was found in the lesion.

5. *Localization and/or Aggravation of Preexisting Coccidioidomycosis by Occupational Injury:*

From the viewpoint of compensability, a much more frequent problem than that of primary cutaneous inoculation is whether an injury may have caused aggravation or localization of preexisting coccidioidomycosis. Cases in which the disease was believed to have resulted from injury were frequently reported in the older literature. In some reports the authors implied that the injury may have been the direct cause of infection. At the time the reports were published the endogenous reinfection nature of the disseminated phase of the disease was not understood. The difficulty is compounded by the chronic and occasional seemingly solitary nature of some lesions.[7] This confusion has been manifested until very recent years.

Campbell[24] said that the rule is well established in most jurisdictions that an aggravation of an existing infirmity caused by an industrial accident is compensable even though the accident would have caused no injury to a normal person. Also, it is applicable in this regard that every aggravation of preexisting disease by injury is compensable, at least for the proportion of disability thus caused.[33]

In many ways analogies with syphilis exist. In regard to syphilis, Miller[18] stated that it is well known that lesions of late syphilis are often precipitated by relatively minor injuries, and that it is often necessary to appraise industrial responsibility in such cases.

Rubinstein[21] cited instances in which cutaneous tuberculosis was accepted as occupational on a similar basis.

The author knows of no published experimental work to determine whether coccidioidomycosis has in fact a tendency to localize at the site of injury, or be aggravated by injury. Published case reports to that effect do not firmly establish such a thesis. On the other hand the possibility cannot be ruled out.

A few patients with local cutaneous lesions of coccidioidal granuloma have been given compensation without being brought before the Industrial Accident Commission of California,[17] and one such problem has been the subject of a decision of the commission. An oilfield worker[39] received a trivial injury of the leg when he struck it against a machine. A week later the leg swelled. A diagnosis of coccidioidal granuloma was made. The patient once had had an active pulmonary infection which had been considered tuberculosis. The Commission recognized that the pulmonary condition may have been a primary coccidioidal infection and that the lesion of the leg might be metastatic. Nevertheless, the Commission held that whether the infection entered through a puncture of the skin or affected the disabled part by reason of localization there of a general infection in the blood stream, the disease in the leg was due to the injury. Compensation was accordingly awarded.

6. *Infections in Agricultural Laborer Imported into Endemic Areas:*

In many areas much migrant labor is still employed. This facet of the problem of coccidioidomycosis in agricultural laborers has so many ramifications and is in general so complex as well as statistically important that it deserves far more than the brief mention possible in this presentation. In addition to the extremely dusty conditions to which these workers may be exposed, their risks are enhanced by the fact that many are non-whites, known to be much more liable to acquire the disseminated form of the disease.

Mexican nationals are brought into this country under the terms of an agreement between the governments of United States and Mexico.[41] This contains a number of provisions relating to health. Each candidate for admission must be examined by the U. S. Public Health Service. The employer is required to provide for the Mexican worker the same medical care and compensation for injury provided in like cases for domestic agricultural workers under the applicable state law. Insofar as the author could determine, the applicability of this law to coccidioidomycosis has not been the subject of a court decision. However, such workers have been hospitalized from time to time at various county hospitals because of coccidioidomycosis, as in the following case:

A 32-year-old Mexican national who had been in California less than a year, working as a farm laborer, was admitted to the Los Angeles County General Hospital in October 1952, with a pulmonary infection. Later a granulomatous cutaneous manifestation of coccidioidomycosis appeared.

Since coccidioidomycosis undoubtedly is endemic in some parts of Mexico, there is always the possibility that a Mexican national who has it in this country actually was infected in his own country.

Filipino laborers, frequently employed in vineyards in endemic areas, seem to be especially liable to dissemination of the disease. The same may be true of Puerto Ricans, numbers of whom have recently been brought into California. Disseminated coccidioidomycosis has already been diagnosed in Puerto Ricans, one of them having been treated at the Kern General Hospital recently.

The disseminated disease has also appeared in white imported laborers. A 22-year-old Basque, brought to Merced County as a sheepherder, acquired the disease in 1952, and the insurance carrier accepted the case as occupational.

As to native migrant workers, it is certain that numbers of them have acquired coccidioidal infections, but whether as a direct outcome of their employment or extra-occupationally, it is virtually impossible to decide in many instances. However, there is one group, relatively small, in which the occupational responsibility is more clear. This group is made up of workers hired in the urban area of Los Angeles by labor contractors and transported each day to the San Joaquin Valley and returned to Los Angeles the same evening. The following is an illustration.

A 38-year-old Negro woman was admitted to the Los Angeles County General Hospital with disseminated coccidioidomycosis. She had been employed as a chambermaid in a downtown Los Angeles hotel from 1945 to 1949. Then she began picking cotton in Kern County. She was transported from Los Angeles by a labor contractor each morning, and returned to Los Angeles each evening.

In most instances, however, the hiring is done near the place of employment, and the question of occupational liability then is much less clear.

7. *Infections in Residents of Endemic Areas Alleged to Result from Occupational Exposure:*

If the patient has lived in an endemic area prior to employment, a decision as to whether the disease was or was not contracted in the course of employment may have to be made virtually without the benefit of differentiating facts—and such are the circumstances in by far the largest number of cases.

In one such case a white man, hired to clear new land with a tractor and leveller, was exposed to very high concentrations of dust. Evidence of a primary pulmonary infection developed within a few weeks. The case was reported to the insurance carrier as occupational and was so accepted by it.[1]

A similar case was the subject of a court decision.[37] A man who had lived most of his life in an endemic area was employed on a wheat ranch in San Luis Obispo County from June 21 through July 23, 1949. His work was principally operating a combine harvester and driving a tractor, and in this employment he was constantly exposed to heavy concentrations of dust. After a month at this job, he consulted a physician because of an illness which was diagnosed as coccidioidomycosis. The Industrial Accident Commission held that the disease arose out of his employment, and the appellate court upheld the decision.

On earlier occasions, however, the courts have ruled otherwise. Miller[17] reported instances of two patients, employed on the same construction project for less than three months, who died of coccidioidomycosis within three weeks after the onset of symptoms. The Industrial Accident Commission, he said, established a precedent and ruled that the disease was not of industrial origin in these cases. The opinion was based on the proof of chronicity and "the risk of commonality" which implies that anyone living in the endemic area is subject to the same risk.

In discussing the question of contagious and infectious diseases as occupational, Hanna[38] pointed out that employment becomes a causative factor only where it exposes the employee to the risk of contracting such diseases to a greater extent than the community generally or, as already discussed, where it takes the employee from a community free from the disease to another where it is prevalent. In the present state of knowledge of epidemiologic aspects of coccidioidomycosis, it may be almost impossible to decide whether any given occupational exposure involves greater risk than the employee's extra-occupational activities, where his home is within an endemic area. The decision in such instances must rest upon the circumstances in the individual case.

As to dissemination, the most susceptible persons are non-white males of working age. Gifford[9] pointed out that in a 38-year period 56 per cent of all cases and 63 per cent of deaths occurred in the age group 25 to 54 years. A preponderance of males in the figures for disseminated coccidioidomycosis holds only for the age group 14 through 60. In a survey of 500 cases covering all types of coccidioidomycosis, Birsner[3] found an approximately even distribution between males and females in those under 13 and over 60 years of age, but a preponderance of males in the age group 14 through 60.

DISCUSSION

Infections with coccidioidomycosis are frequently associated with circumstances suggesting occupational origin.

With the exception of those cases where aggravation of a preexisting disease is considered, criteria for the establishment of a case as occupational should, ideally, include evidence that the patient was free of the disease prior to the suspected employment exposure. Such evidence will often not be available,

however. Second, there should be no chronologic discrepancies between the alleged infecting exposure period and the onset of the disease. Third, the working conditions should be clearly productive of possible infecting exposures. Fourth, extra-employment exposures to an equal or greater degree than work exposures should be reasonably excluded or evaluated. If these rather rigid criteria are met, it would seem that the occupational origin of the case has been established.

Initiation of action to establish any case as occupational is, in general, a function of the attendant physician. However, the socioeconomic importance of this problem to the entire Southwest goes far beyond the assignment of industrial liability in individual instances. It is to be hoped that increased awareness of the occupational aspects of coccidioidomycosis will lead to intensive investigations actively supported in the future by private as well as public agencies.

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Recalcitrant Vesiculopustular Eruptions of The Palms and Soles

Treatment with a Sensitized Mixed Vaccine

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• Twenty-two patients with recalcitrant vesiculopustular eruptions of the palms and soles were treated with a series of subcutaneous injections of a sensitized mixed vaccine. In seven cases the skin cleared and remained clear for periods of observation varying from five to sixteen months. In nine there was improvement or clearing but subsequent recurrence. Six patients had no improvement.

BAIRD[1] HAVING REPORTED the cure of so-called pustular psoriasis in all of 12 patients who were treated with Staphylo Serobacterin Vaccine Mixed (Sharpe & Dohme), a study was made of the effect of the vaccine in the treatment of recalcitrant vesiculopustular eruptions of the palms and soles.

The broad term "recalcitrant vesiculopustular eruption" is used to describe the conditions dealt with herein because many of them were not definite clinical entities. Included were conditions that have been called, variously, pustular psoriasis, pustular bacterid, acrodermatitis continua, dermatitis repens and recurrent palma-plantar pustulosis. Cases of dermatophytosis, dermatophytid, contact dermatitis, and dermatitis medicamentosa, as determined by history, laboratory tests and clinical examination, were excluded. There was no evidence of psoriasis in any of the patients treated. Investigation of possible foci of infection was not carried out. However, one of the patients had infected teeth extracted while under observation without effect upon the dermal eruption. In another case the dermal condition flared concomitantly with the draining of a rectal abscess and did not subsequently clear. Dyshidrosis and disturbances in sweating may have been complicating factors in some of the cases. It is improbable that pyogenic infections were a factor in any case, for patients had had previous systemic antibiotic therapy without benefit.

The criteria for inclusion of patients in the series were chronicity of disease and failure to respond to previous therapy. Twenty-two patients were included. Seven were from the University of California clinics and 15 from the private practice of the various members of the staff. Eleven patients had involvement of the hands alone, five of only the feet, and six of the hands and the feet. Vesiculation was present in all cases. Pustulation was not a constant finding but was present at some time in the majority of cases. The duration of eruption varied from 8 months to 24 years and the average was 6.4 years. Most of the patients had previously received radiation therapy, systemic administration of antibiotics, treatment with antihistamines, and various forms of local therapy.

Staphylo Serobacterin Vaccine Mixed (Sharpe & Dohme) was injected subcutaneously either once or twice weekly in increasing doses as tolerated, beginning with 0.05 cc. and building up to 1 cc., usually by increasing the dose by 0.1 cc. at each visit. The duration of treatment varied from four to sixteen weeks and the average was eleven weeks. No serious reactions were noted, although some of the patients reported redness and tenderness at the site of injection and some complained of malaise 4 to 48 hours following the injection. In some cases there was a local area of induration at the site of the injection which persisted for two to four weeks. The patients, in addition, were given local and symptomatic treatments as indicated.

In seven cases the skin completely cleared and remained clear for periods of observation ranging from 5 to 16 months. Nine patients had improvement or clearing and subsequent flare but felt the vaccine was at least of temporary benefit. In six cases there was no improvement.

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Acid Detergent Douche Therapy of Leukorrhea

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• A harmless acid detergent douche solution based on known physiologic and chemical factors was used in clinical trial on 104 patients having leukorrhea of various causes.

When used alone or as an adjunct to other forms of therapy there was a favorable response in 81 per cent of patients with infections who were followed.

In non-infectious leukorrhea there was probably no shortening of healing; however, there was effective relief of symptoms in 84 per cent of those who were followed.

This acid detergent douche solution may have a wide range of use.

OFTEN IN THE treatment of of leukorrhea there is early favorable response to therapy but subsequent exacerbation. One reason may be that antibacterial agents used in treatment interfere with the restoration of physiologic environment by repressing the growth of normal vaginal flora.

The pH of the vagina is normally in the range of 3.8 to 4.5, and normally lactobacilli of Doederlein are present and there is discharge of mucoepithelial material. When pathologic states develop, desquammation of epithelial cells increases in proportion to the severity of inflammation. The loss of glycogen deposits in the desquammated cells causes a decrease in the conversion of carbohydrates into lactic acid and the resulting increased alkalinity of the vagina is hospitable to the pathogens and inimical to Doederlein's bacillus. Restoration of normal pH and flora combats the pathogenic organisms.

Daily douching often is a part of the treatment administered in dealing with leukorrhea, and since it is possible that the solution used might contain agents that could hamper the regrowth of Doederlein's bacillus the authors believed that a douche solution having the following properties would be of value:

1. It should contain a harmless, non-sensitizing detergent to remove the coagulated debris and mucous deposits.

2. It should be acid and should be buffered sufficiently to maintain the physiological pH.

3. It should not contain any antibacterial agents, since the contact possible during douching would be so fleeting that specific antibacterial action could not be expected.

Accordingly, the following formula* was used in douches in the treatment of a variety of mucopurulent conditions of the vagina:

Citric acid, U.S.P.	2.5 per cent
Acetic acid, U.S.P.	4.0 per cent
Lactic acid, U.S.P.	2.0 per cent
Sodium lauryl sulfate, U.S.P.	3.0 per cent
Dextrose, U.S.P.	5.0 per cent
Lactose (beta) U.S.P.	2.5 per cent
Sodium acetate, U.S.P.	2.5 per cent
Methyl paraben, U.S.P.	0.2 per cent
Distilled water—sufficient quantity to make	100 per cent

*Pro-acet Douche Concentrate, prepared by Pro-Acet, Inc., Oakland.

It should be noted that the solution includes acids that are physiologically compatible and that have maximum buffer capacity at the normal pH of the vagina. These were adjusted to form a buffer by the addition of the sodium acetate. Although it has greater alkaline neutralizing power than the usual full strength acid douche, the buffered product is non-irritating even in its concentrated form. The normal unbuffered acid douche, such as vinegar, is extremely irritating when in contact with inflamed mucosal tissue. Sodium lauryl sulfate U.S.P. was used in the mixture because of its exceptional weting and surface tension effects and its high detersive and suspending action without harmful effect.

PATIENTS AND METHODS

One hundred and four patients with mucopurulent discharge of various cause were instructed in the use of the specially formulated douche solution (hereafter described as the "acidified detergent douche solution"). In general the directions were to douche morning and evening with a solution made by adding one teaspoonful of the concentrate to a quart of warm water. More frequent application and stronger concentrations were prescribed when indicated. Occasionally the concentrate was applied full strength.

The patients were told how to douche in the recumbent or sitting position, and especially careful instructions were given to pregnant patients due to the usual contraindications for douching during this period.

Some of the patients had infectious leukorrhea, as diagnosed by microscopic technique, and in others the disease was not infectious.

Infectious Leukorrhea

Some of the patients with trichomonas vaginalis were treated with the acidified detergent douche solution as an adjunct to diiodo-hydroxyquinoline in the form of vaginal suppositories,* and some of them were treated with the acidified detergent douche solution only. Some of the patients had monilia vaginitis alone and three of them had monilia and trichomonas vaginitis.† In some cases of monilial infections a vaginal jelly containing the same formulation as the douche solution was prescribed in order to maintain more continuously the pH and normal physiological environment in the period between the two daily douchings.

Non-Infectious Leukorrhea

Sixty-six patients were treated for non-infectious leukorrhea. In the majority of cases it was a sequel to operation such as hysterectomy or cervical operation, but there were also cases of postpartum cervical erosion, cervicitis, leukorrhea of pregnancy, leukorrhea associated with carcinoma of the cervix, atrophic vaginitis and non-specific vaginitis.

The patients were reexamined from time to time, the interval depending on the kind of leukorrhea being treated. Some of the patients with infectious leukorrhea were observed for periods as long as four months, and in all such cases careful microscopic examination of vaginal exudate was carried out. In most of the non-infectious cases, twice daily douching was continued for three to four weeks, and in the infectious cases for three to four months.

The results of the treatment with the use of the acidified detergent douche solutions are shown in Table 1.

TABLE 1.—*Results of acid detergent douche therapy in the treatment of leukorrhea.*

Diagnosis	No. Cases	Results‡ Good	Results‡ Poor	No Report
INFECTIOUS LEUKORRHEA (identified by smears)				
Trichomonas:				
Douche and adjunctive§ therapy:				
Pregnant	1	....	1	....
Non-pregnant	14	10	1	3
Douche sole therapy:				
Pregnant	3	2	1	....
Non-pregnant	8	7	....	1
Monilia:				
Pregnant	3	1	2	....
Non-pregnant	6	4	1	1
Monilia and Trichomonas	3	3	....	....
NON-INFECTIOUS LEUKORRHEA				
Postoperative (cervical, cautery, cervical operations, hysterectomy)	47	43	2	2
Postpartum erosions (no cautery)	9	2	6	1
Leukorrhea of pregnancy	3	3	....	....
Carcinoma of cervix (from leukorrhea)	3	2	1	....
Atrophic vaginitis	1	....	1	....
Non-specific leukorrhea	3	3	....	....

‡Good: Abatement of leukorrhea and, in infectious cases, of infecting organism. Poor: Leukorrhea persisting or infecting organism still present.

§Use of diiodo-hydroxyquinoline vaginal suppositories between douchings.

DISCUSSION

Although the number of cases of trichomonas infestation was small, the results in the present series indicated that a properly formulated douche solution may play an important part in the reduction and subsequent elimination of the parasite. Patients using the acidified detergent douche solution had immediate relief from itching, burning and discharge, and only one patient was found to be infested when examined after four months of douche therapy. The group using diiodo-hydroxyquinoline vaginal suppositories along with the acidified detergent douche solution was too small in number to warrant any definite conclusions as to the potential additive effectiveness of the combined procedures. However, whether used alone or as an adjunct to older types of treatment, the acidified detergent douche solution had apparently resulted in a complete remission.

The three patients who had trichomonas and monilia together experienced subjective relief of symptoms from the time of the beginning of acidified detergent douche therapy. The infections continued in remission and no recurrence was found when microscopic examination of material from the vagina was carried out several months later.

Patients with monilial leukorrhea had to make frequent office visits for repeated instrumental removal of firmly adherent monilial plaques, from the vaginal walls. The acidfied detergent douche solution did not disperse these plaques, but after they were removed instrumentally the continued use of the douche solution apparently played a role in decreasing the formation of new ones and thereby assisted in the reestablishment of the normal physiological environment.

As to the results in treatment of postoperative leukorrhea, which usually abates in time even without treatment, it is not claimed that the douche therapy had any effect on healing time; as here used, the term "good result" with regard to such cases means only immediate subjective relief from the symptoms of leukorrhea. Similarly, leukorrhea of

*Floraquin suppositories (G. D. Searle & Co.) were prescribed.

†Monilia and trichomonas were found microscopically to coexist despite the usual statements to the effect that they will not live in the same pH range.

pregnancy, leukorrhea of cervical carcinoma and non-specific leukorrhea responded well to the preparation. It should be noted, however, that when pathological conditions persisted the temporary relief obtained with the use of the douche was not sustained. An illustration is postpartum erosion in which no cautery was done. In such cases when electrocautery subsequently was carried out, continued use of the douche solution brought symptomatic relief, and ultimately complete healing occurred.

Especially interesting were the control experiments on a number of patients with trichomonas or monilial vaginitis. From the encouraging results achieved with the acidified detergent douche solution as the sole method of treatment, it might be concluded that the normal recuperative powers of the vagina (assisted by the douche solution) have been underestimated as a factor in the restoration of normal physiology.

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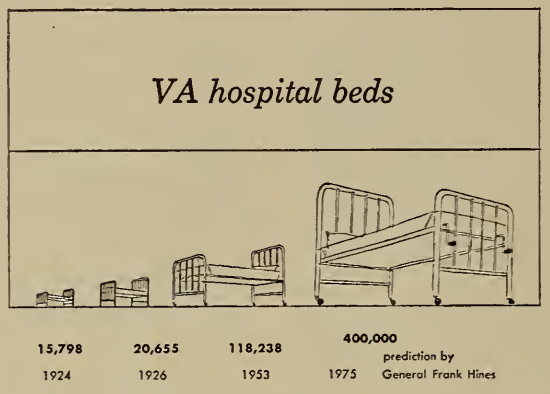
In Viewing the VA Medical Program . . .



Former VA Administrator Frank Hines estimated that by 1975 under existing VA medical legislation, approximately 400,000 hospital beds will be needed. Yet medical authorities are convinced the VA cannot attract sufficient medical personnel to staff more than 120,000 beds. The VA now maintains three times the number of beds needed for treatment of service-connected cases.

Cerebral Atrophy

Clinical Manifestations in Adults

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• *A study was made of the cases of 200 patients with demonstrated cerebral atrophy. In patients under 70 years of age cerebral atrophy was twice as common in men as women. Over 70 years the ratio was reversed. The incidence of cerebral atrophy was relatively high in the age group 35 to 50.*

Convulsions were present in more than a third of the 200 patients. Neurological abnormalities were present in 51 per cent of the entire series. Significant personality deviations were observed in 31 per cent. Although the electroencephalogram was abnormal in many patients, it appeared to be of little aid in the diagnosis of the cerebral atrophy. The spinal fluid did not seem to be consistently altered in any significant or diagnostic manner.

Most of the patients in the 35 to 50 year age group did not have the symptoms characteristic of Alzheimer's disease, and in only a few cases did the symptoms resemble those of other recognized disease entities.

A GREAT DEAL of attention has been given to senile and presenile cerebral atrophy and to the shrinking of the brain incident to deleterious influences at birth or in early life, but the atrophic conditions of the brain occurring in the robust years of adulthood appear to have been largely ignored. Moreover, when such conditions are recognized in persons of the middle years there has been a tendency to classify them as "presenile." In this connection a question that might well be raised is: When does senility begin?

Impressed with the relative frequency with which atrophy is encountered in persons between 25 and 50 years of age, the author reviewed the clinical records of 200 patients with a diagnosis of cerebral atrophy. In the records of the last ten years at the Los Angeles County General Hospital, 100 were found in which significant atrophy was demonstrated either by pneumoencephalogram or by autopsy. The age range was from 22 to 93 years. From the records of the White Memorial Hospital, another 100 case studies were selected of patients between the ages of 25 and 55 years in whom significant atrophy had been demonstrated by either pneumoencephalogram or ventriculogram or both. For the sake of brevity, hereafter the Los Angeles County General Hospital series will be designated as the first series and the White Memorial Hospital series as the second series.

Age: In the first series, in which the age range was from 22 to 93 years, there were 61 men and 39 women and in the second series with patients of ages from 25 to 55 years there were 65 men and 35 women (Table 1). A ratio of about two men to one woman was quite constant through to the age of 70 years, but above that age the ratio was reversed. It is of interest that the greatest incidence of atrophy in the first series was in the age group of 40 to 49 years (27 per cent of cases were in that group) and in the second series the highest incidence (39 per cent of cases) was in the 35 to 45 age group.

Convulsions: The most constant clinical manifestations in patients up to the age of 55 years was convulsions (Table 2). In the first series there were 37 patients with convulsions and only four of them were over 50 years of age. In the second series 42 had convulsions. The incidence was high enough in both series to warrant a conclusion that cerebral atrophy should be considered in the differential diagnosis of a convulsive disorder beginning in adulthood without apparent cause.

Personality Disorders: The frequency of gross personality deviations in this rather large group of patients was less than one might expect. Significant personality deviations were observed in 40 of the patients in the first series and in 22 of those in the second series (Table 3). In the first group, 17 were psychotic, 15 were deteriorated, and eight were severely neurotic. In the other group there were no psychotic patients, only seven with deterioration and 15 with severe neurosis. In both series the incidence of deterioration was highest in the older age group. More than half of the psychotic patients were over 60 years of age. While 36 per cent of the 200 patients had serious mental deviations, the incidence in the

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TABLE 1.—*Age and sex of patients with cerebral atrophy*

Los Angeles County General Hospital Series:

Age	Male	Female	Total
20-29	1	2	3
30-39	2	4	6
40-49	19	8	27
50-59	13	7	20
60-69	17	4	21
70-79	3	5	8
80	6	9	15
	61	39	100

White Memorial Hospital Series:

Age	Male	Female	Total
25-34	20	5	25
35-44	19	20	39
45-54	26	10	36
	65	35	100

TABLE 2.—*Incidence of convulsions in patients with cerebral atrophy*

Los Angeles County General Hospital Series:

Age	No. Patients	Convulsions	Per Cent
20-29	3	2	66
30-39	6	4	66
40-49	27	15	55
50-59	20	12	60
60-69	21	2	10
70-79	8	2	25
80	15	0	0
	100	37	37

White Memorial Hospital Series:

Age	No. Patients	Convulsions	Per Cent
25-34	25	7	28.9
35-44	39	19	48.7
45-54	36	16	44.4
	100	42	42

TABLE 3.—*Incidence of personality deviations in association with cerebral atrophy*

Los Angeles County General Hospital Series:

Age	No. Patients	Neurosis	Deterioration	Psychosis	Total
20-29	3	0	0	2	2
30-39	6	1	0	0	1
40-49	27	4	0	2	6
50-59	20	2	3	3	8
60-69	21	1	3	7	11
70-79	8	0	2	0	2
80	15	0	7	3	10
	100	8	15	17	40

White Memorial Hospital Series:

Age	No. Patients	Neurosis	Deterioration	Psychosis	Total
25-34	25	0	2	0	2
35-44	39	8	2	0	10
45-54	36	7	3	0	10
	100	15	7	0	22

middle adult age group, with which this presentation is primarily concerned, was only about 25 per cent.

Abnormal Neurological Findings: Definite neurological abnormality was observed in 102 of the 200 patients—54 in the first group and 48 in the second. The signs varied in severity from abnormal reaction of a toe on one foot to spastic weakness of all four extremities. The two most common clinical combinations were unilateral signs referrable to the upper motor neuron beginning in one extremity and spreading to the other on the same side, and spastic weakness of both lower extremities. In many instances the signs and symptoms mimicked those of a space-taking intracranial lesion. Abnormal sensory findings were much less frequent than motor disturbance. In some five patients with demonstrated cerebellar atrophy signs referrable to the cerebellum were present. In a few patients the clinical picture resembled that of multiple sclerosis.

LABORATORY DATA

Electroencephalography: Electroencephalographic studies were carried out in 33 cases in the first group and in 27 cases the tracings were abnormal. In the second group electroencephalograms were made in 52 cases and the tracings were abnormal in 39. Although the incidence of abnormalities was somewhat greater in patients with convulsions and neurologic abnormalities and many times focal dysrhythmias were present in patients with lateralized neurologic deficits, this usually was of little help in the overall diagnosis; in many cases it only further confused the issue by helping to complete a diagnostic picture of a tumor where only atrophy existed. The degree of atrophy seemed to have little effect on the electroencephalogram; sometimes tracings were normal even in the presence of gross atrophy.

Spinal Fluid: Studies of the spinal fluid are of little help in the diagnosis of cerebral atrophy aside from the fact that if much is withdrawn when the patient is being prepared for pneumoencephalographic studies, the extraordinary volume indicates the brain must be smaller. There was no consistent variation in the spinal fluid pressure. The number of cells in the fluid was normal in most patients except those in whom it could be explained otherwise. There was pronounced variation in total protein content with a tendency to be a little higher than normal in most instances. A normal colloidal gold curve was the rule. In two cases in the second series there was a rise in the first zone, and in two others a rise in the middle zone, but without apparent reason.

Roentgen studies after introduction of air, such as pneumoencephalograms and ventriculograms, or both, appear to be the only satisfactory means of diagnosing cerebral atrophy during life.

DISCUSSION

Alzheimer's disease is generally accepted as a presenile dementia, a disease of later middle life, most common between the ages of 50 and 60 years and at times as early as the age of 40 years. It is characterized by slowly progressive psychic changes such as impaired memory, confusion, excitement, restlessness, hallucinations and deterioration to the extent that the patient is nearly a vegetable. Often associated with the mental changes are abnormal neurological findings and convulsions. The brain shows generalized cortical atrophy of varying extent, but in true Alzheimer's disease, senile plaques and degenerative fibrillary changes in the ganglion cells of the cortex must be found on histologic examination. The cause of this condition is unknown.

In only a few of the 100 cases in the second series were the clinical conditions at all suggestive of Alzheimer's disease. Only 22 of the patients had personality deviations of any major degree, and 15 of the 22 were psychoneurotic. Only seven had mental deterioration. It is somewhat difficult to fit the other 78 cases into the picture of the precocious senility of Alzheimer, and even harder to reconcile them with descriptions of Pick's disease. The disease that was observed in those cases could be named the *idiopathic cerebral atrophy of the adult.* However, this does not accomplish much, for Alzheimer's disease is also idiopathic as far as present knowledge is concerned. Several authorities feel that the histologic changes in the brain, upon which the diagnosis of Alzheimer's disease is made, are not specific for the disease and are found under other circumstances. At least one case was reported in a patient as young as 15 years. It is the author's conviction that most of the cases in the two series herein reported upon were not Alzheimer's disease. This applies especially to the second series, in which some of the patients had head injuries, others drank much spirits, three had had syphilis in early life (but had no indications of the disease at the time of the study). In a few cases vascular diseases may have been an etiologic factor, and no doubt a few of the patients had Alzheimer's disease. But what is the basic etiologic factor in the others?

It is altogether possible that the "Alzheimer's disease" in persons who can walk abroad has different clinical manifestations than the Alzheimer's disease that has been studied in institutions and has been recorded in the literature.

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Spasticity

Its Nature and Treatment

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• There are a number of physiological means of relaxing spasticity, including active resistive exercise, cold hydrotherapy, heat, electrical stimulation of antagonistic muscles, passive stretch in diagonal movement patterns, and the Von Bechterew reflex. Although none of them will cure spasticity, temporary relaxation may permit a patient to achieve better functioning of an affected joint. The choice of procedure will depend on the nature of the lesion and the muscular distribution of the spasticity.

As there is much uncertainty as to the nature of spasticity, a good approach to the subject is to consider first some basic physiological facts. The development of the central nervous system is achieved through a continuous process of maturation, from the simple, as in a fetus, to the most complex, as in an adult. Each gain is accomplished by integration and control of the previous more primitive stage. Although it is possible to distinguish phases in this process, there are no demarcations; the various stages blend together.

From the middle of the seventh week of age, through birth, the human fetus responds to sensory stimulation with reflex movements, which at first are gross in nature, involving the entire body, and then become particularized and more specific. At about thirteen and a half to fourteen weeks the total pattern type of response practically disappears and is replaced by specific reflexes such as swallowing and finger closure.[3] In fact many of the reflexes of the newborn are present by that time and from then until birth become more vigorous, while new ones emerge.

Birth is merely an incident in the gradual development of behavior patterns. Whether it occurs chronologically at 27 weeks or in the normal period of gestation, birth does not result in the elimination of the fetal reflex responses. These continue to develop until they are suppressed by cortical impulses which traverse maturing corticospinal tracts. (This suppression is incomplete; many reflexes persist even through the adult stage.)

In disease involving the central nervous system, disintegration occurs in what Hughlings Jackson labeled "the hierarchy of the nervous system." Whereas in maturation, higher centers suppress lower ones, in disease the more complex and more voluntary functions are replaced by the more simple and the more automatic.

The hyperactive or pathological reflexes such as the Babinski, Oppenheim, Gordon, Chaddock, Schaefer, and Rossolimo reflexes not only indicate lesions of the central nervous system but are also physiological expressions of the release of reflexes from the control of brain centers or pathways damaged by disease.

The reflex is a behavior arc which involves theoretically a single segment of the spinal cord. It requires only a sensory neuron, an internuncial neuron and a motor neuron, or, if it is the stretch reflex, it involves only the sensory and motor neurons. In practice no reflex in the human is this simple. The most limited sensory stimulus calls forth a motor response from many segments of the spinal cord. For example, a pin-prick on the foot results in withdrawal of the whole leg, the muscles of which are innervated by many spinal cord segments. Even more complicated are the postural reflexes. Through stimulation of a number of discrete areas (semicircular canals and neck muscles, for example) the whole body responds to maintain equilibrium against the displacing pull of gravity. The conditioned reflexes are the most complicated, requiring the cortex for their development. They form the framework of habit patterns and learning.

In humans, when the spinal cord is transected the distal portion of the cord is released from the control of the rest of the central nervous system and responds with a very primitive flexion reflex to visceral, cutaneous and proprioceptive stimuli. This is labeled *spasm*, and its neuronal circuit occurs entirely by way of the spinal cord. It results in a spontaneous movement of the lower extremity which resembles the flexion phase of walking.

Frequently *spasticity* and *spasm* are thought of as synonymous, but the two should be distinguished. Their significance and the treatment of them are different. Whereas spasm is a stereotyped flexion reflex, spasticity manifests itself as an impedance to

passive movement. In normal persons with muscles at rest, it is possible to move the various parts of a limb with relatively little resistance through a range of motion which varies in extent from joint to joint. This is known as passive movement and depends on non-contraction of agonist or antagonist muscles, as well as on non-impedance by ligaments and synovial surfaces of the joints. Inactivity of muscle, in turn, depends on volitional relaxation by the patient, although this may not be achieved without previous training. At the end of the range, antagonists that are stretched respond with reflex contraction and impede further passive movement even though considerable force be applied.

In many patients with lesions of the central nervous system there is pronounced interference with such passive movement in ranges where no impedance occurs in normal persons. This may vary both in degree and nature. Some show constant rigidity of muscles in their shortened position so that passive movement is difficult to initiate. Some show interference in the center of the range and motion is impeded at one particular point and at no other. Some show alternate tightness and relaxation, the so-called "cog-wheel" effect. Many have limitation of passive movement at the end of the range. The different forms may all be present in the same person. In all types, interference is dependent on the speed of the passive movement as well as the positioning of the extremity.

In man and apes the extensor muscles are primarily affected, except in the arm where the flexors are involved. Frogs, which normally rest with flexed thighs, legs and arms, develop decerebrate rigidity in the flexor muscles. Pigeons, whose flexor muscles maintain the position of the wing at rest, exhibit rigidity in these same muscles. A generalization which accounts for the known muscular distribution of spasticity in most species is that it involves primarily the antigravity or equilibrium-maintaining groups of muscles.

Spasticity has been thought to be due to an increased sensitivity of the stretch reflex, but this is an oversimplification. In fact Kennard[6] demonstrated, following parietal ablation in monkeys, a heightened stretch reflex associated with flaccidity. Broadly and more accurately, spasticity may be described as an exaggeration of the postural reflexes due to the absence of some normal factors which control these reflexes. The hyper-reflexia is due not only to a release from inhibition, but to facilitation which is also a major factor.[11]

Spasm and spasticity may occur simultaneously. In the former, the reflex is relayed through the spinal cord; in the latter, a chain of reactions is set off involving many of the higher centers.

Decerebrate rigidity is a condition in animals which is an exaggeration of a condition observed in spasticity in man. (As a matter of fact, Walshe[14] described a case of decerebrate rigidity in man.) When the cerebral hemispheres are removed from an animal, as was first done by Sherrington[12] in 1896, rigidity of the joints occurs as a result of static contraction of the extensor muscles, and the rigidity maintains the animal in the standing position. In decerebrate animals, the dependence of this condition on a number of higher centers is evidenced by the following: Stimulation of the medial anterior lobe of the cerebellar cortex results in suppression of spasticity, whereas, ablation of the same area produces an exaggeration of spasticity. Destruction of the vestibular nuclei or of the vestibulospinal tracts, or section of the afferent roots abolishes spasticity. Labyrinthectomy results in rigidity which is abolished by deafferentation and restored by ablation of the homolateral cortex of the anterior lobe of the cerebellum.[1] It is apparent that spasticity is dependent on a number of centers which directly or indirectly also have been shown to influence the maintenance of equilibrium. No one structure alone is involved; rather, a number working in a dynamic interrelationship help to maintain equilibrium, or, when damaged, to produce spasticity.

Spasticity is an important factor in neuromuscular disease. It is of clinical importance because it interferes with both passive and active movement. Since it does not remain static it tends either to improve or to become more severe. In patients with progressive disease, spasticity will increase, but even patients with a static corticospinal lesion may show progression of spasticity. The latter is evident in patients with hemiplegia due to cranial injury where flexor spasticity of the upper extremity may gradually restrict the range of movement until the arm is curled up against the chest, the wrist is in flexion and the fingers are tightly pressed into the palm of the hand.

Spasticity with resulting shortening of the range of motion leads to contracture which is an obvious handicap in utilizing a limb. An extremity immobilized by spasticity and contracture becomes a dead weight which interferes with the mobility of the rest of the body and is much more disabling than a limb that retains some flexibility even though voluntary function is lost.

Spasticity also interferes with practical recovery of voluntary motion of the antagonists. Many patients have spastic extensors of the knee and are unable to flex the knee against the spasticity. When these muscles are relaxed, voluntary knee flexor power is manifest. (It has been possible, in selected cases, to improve such initial slight voluntary power by relaxation of the spasticity and by utilizing facilitation techniques in physical therapy.) Thus,

spasticity is a deterrent to the full utilization of residual motor capacity.

It is incorrect to assume that spasticity is always harmful. Often extensors of the knee maintained in contraction by spasticity help keep a patient erect when relaxation of these same muscles, without sufficient voluntary power, results in collapse of the knees on weight bearing. Spasticity may also be of value in facilitating voluntary power in the spastic muscles themselves. Twitchell[13] pointed out that the first voluntary movements to appear following hemiplegia are themselves facilitated reflexes. He expressed the opinion that the problem at that stage is not so much to abolish the spastic reaction as to harness its diffuse hyperactivity.

A number of therapeutic procedures to alleviate spasticity have been suggested. Surgical treatment, often used, has had but limited success, and the only surgical procedures that merit discussion today are. first, Foerster's[2] method of posterior rhizotomy, and two other procedures, anterior rhizotomy and neurectomy. In the Foerster operation, alternate sensory roots are cut to remove excess afferent impulses which help maintain hypertonicity. This is in accordance with Sherrington's observation that deafferentation produces flaccidity in the decerebrate preparation. With this procedure, there is partial loss of function and some danger of substituting flaccid for spastic paralysis. Neurectomy is used where it is desirable to eliminate spasticity by cutting the motor nerve to selected muscles. By weakening the spastic muscles, the antagonists are freed and the contracture overcome. Such a procedure is of value in certain cases.

The use of drugs in relieving spasticity has received some study. Kabat[4] employed neostigmine and attributed its effect to action on the internuncial neurones. Other investigators suggested the use of agents that block the neuromuscular junction, such as curare or curare-like substances. Most recently, mephenesin has been employed with some success. The exact nature of its effect is not known but its action also appears to be primarily on the internuncial neurones.[10]

Actually, neither operation nor the administration of drugs has proved adequate for many of the patients under the authors' care who still retain useful voluntary muscle power but whose rehabilitation is limited by spasticity. Mephenesin is of value in such cases, although it is not well tolerated by some patients. Therefore, new methods of treatment for this condition have been sought and experiments with physiological methods for relaxing spasticity have been carried out. Heat was used at one time, but its value has been questioned.[7] Passive stretching also has been employed, although the intent was to prevent contracture rather than to relax spasticity.

In the studies by the authors the range of passive movement was measured with a goniometer before and after application of relaxation techniques. A statistically significant change in any of the measurements reflects a general decrease in spasticity. The goniometric measurement of the complete range of passive movement was employed because in spasticity there is frequently a pronounced limitation of this total range. When relaxation occurs, a measurable increase in range results and, simultaneously, a decrease in the amount of resistance to initiating the passive movement and in the resistance within the range takes place. Consequently, measurements of the total range indicate alterations not only in resistance to the initiation of movement but also in resistance to progression of movement. Although measurement of any one movement at any single joint is subject to considerable error, measurements of three different movements (as employed in the evaluations herein reported) are statistically more valid if they all vary significantly in any one direction. Multiple measurements were possible because relaxation extended to adjacent muscles and joints, permitting more than one movement to be tested for each procedure employed. The details of the goniometric studies have been published elsewhere.[8]

THE EFFECT OF ELECTRICAL STIMULATION ON SPASTICITY

The first physiological procedure studied and found of value was faradic stimulation of muscles antagonistic to those with spasticity. (Sherrington demonstrated a similar phenomenon in decerebrate animals.) In these studies a standard faradic stimulator was used and the active electrode was placed on various points of the antagonistic muscles, the most efficient point of contact being decided by the degree of relaxation. Details were reported in a previous publication on this subject.[9] An illustration of the procedure should be helpful. To relax spasticity in the quadriceps, the electrode is placed at various points on the hamstrings. When the current is applied, the knee is flexed by the therapist, whether with or without the voluntary participation of the patient depending on the degree of residual voluntary power. The amount of pressure exerted by the therapist is insufficient in itself to produce flexion unless relaxation occurs. The pressure serves two functions: It indicates when the electrical stimulation produces relaxation, and, when relaxation occurs, it facilitates the inhibition of spasticity by carrying the limb through its *maximum range* of motion.

There are many variations in procedure which depend on total patterns of movement. Relaxation of the quadriceps, in the foregoing example, cannot be isolated from relaxation of the whole leg. To achieve

this, many points are stimulated not only in the hamstrings but in muscles of the entire leg.

Since the quadriceps is not homogeneous but consists of a number of different muscles, there may be more than one way of relaxing extensor tightness at the knee. For example, one pattern of relaxation includes electrical stimulation of the gluteus maximus, the adductor magnus and the inner hamstrings, whereas in other patterns of relaxation the gluteus medius, the abductors and the outer hamstrings are stimulated. Precise details of the various patterns will be published elsewhere.

THE EFFECT OF COLD AND WARM HYDROTHERAPY ON SPASTICITY

It is frequently said that cold increases spasticity. The authors' experience has indicated, however, that immersion of a spastic limb in cold water (50° F.) for five minutes results first in flexor spasm and then in relaxation of both the temporary spasm and of the spasticity. The reported increase in tightness following exposure to cold may therefore refer to the flexor spasm rather than the spasticity. Immersion of the hand and wrist results in relaxation of spasticity in the fingers, wrist, and shoulder, although spasticity in the shoulder may increase slightly. Immersion of the foot and ankle results in relaxation of the entire leg. The use of cold is a simple procedure which has only one contraindication: In hemiplegia due to arteriosclerosis or hypertension, cold may set up a pressor effect, causing the blood pressure to rise suddenly. It is therefore important to either avoid cold in the treatment of spasticity in such circumstances or to employ it under carefully controlled conditions. In addition to cold water, the application of cold packs directly to the spastic muscles appears to be of value.

Heat is beneficial in certain types of spasticity. Immersion of the hand and wrist of a person with spastic hemiplegia in hot water (105° F.) for five minutes results in relaxation of the entire upper extremity. The use of heat, however, has very specific indications. It has been noted in the present study that patients with spasticity resulting from multiple sclerosis have increased leg spasticity when the foot and ankle are immersed in hot water. Further work is in progress to elaborate on this phenomenon.

THE EFFECT OF PASSIVE STRETCH AND EXERCISE ON SPASTICITY

Passive stretch in the form of the lengthening reaction quite obviously brings about relaxation of spasticity. This can be demonstrated, for example, in any patient with tightness in the extensors of the knee during initiation of flexion of the knee. Flexion pressure exerted by the therapist will cause the knee to "jack-knife" suddenly. This is the characteristic lengthening reaction first observed by Sherrington.

The effect of passive stretch at the end of the range, which is intended primarily to increase the total range of movement, is less definite. The authors' experience indicates that passive stretch utilizing straight movements of the extremities is not as effective as passive stretch which permits the limb to be moved through a range simulating normal diagonal patterns of movement.

Active exercise decreases spasticity. This is especially true if the exercise is performed against resistance. The exercises should encourage contraction of the muscles antagonistic to those with spasticity. Facilitation techniques, previously described,[5] may be employed to build up power in these muscles.

THE EFFECT OF THE VON BECHTEREW REFLEX ON SPASTICITY

An example of a number of flexor reflexes which influence spasticity is the Von Bechterew reflex induced by plantar flexion at the metacarpophalangeal joint of the big toe. The mass flexion spasm which results produces relaxation of spasticity in the homolateral as well as in the opposite leg. In certain spastic patients a crossed extension reflex, in which relaxation in one leg is accompanied by an increase in extensor spasticity in the opposite leg, has been observed.

DISCUSSION

The exaggerated postural reflexes characteristic of spasticity are influenced by a number of physiological factors, including electrical stimulation of antagonists, active exercise, passive stretch, cold, heat, and associated reflexes.

Earlier work by Sherrington and others emphasized the importance of the afferent pathways in maintaining spasticity or decerebrate rigidity. If the sensory nerves are cut, decerebrate rigidity either decreases or disappears. The authors' investigations would indicate that the afferent pathways play an important role in controlling spasticity. In other words, not only is spasticity inhibited by higher centers, but afferent pathways assist in this inhibition at a segmental level.

In deciding which relaxation procedure is to be employed in any one patient, the site of the lesion and the degree and distribution of the spasticity are important.

None of the procedures reported upon herein will cure spasticity. The relaxation which occurs persists for varying periods of time depending on whether there is any alteration in functional movement of the patient following relaxation. In those in whom resto-

ration of voluntary motor function can be achieved, the relaxation assists in attaining this goal more rapidly, since spasticity may at times be a deterrent to slight voluntary motion. In other patients with static or progressively deteriorating lesions, the relaxation of spasticity will not persist after treatment is discontinued unless neuromuscular reeducation brings about a change in functional movement either through facilitation of preexisting motor potentialities or through mechanical facilitation of movement. If a patient has been totally incapacitated, and relaxation permits ambulation, even with the aid of devices, improvement in spasticity will persist as the result of the new dynamic balance between movement and spasticity.

In spite of the fact that there are cumulative effects from repeated relaxation, if the status of the patient in terms of functional movement does not change, relaxation will not persist after treatment is discontinued. However, if the relaxation technique is applied daily over an extended period, the reduction in spasticity will be beneficial in decreasing the disability and preventing contracture.

Where voluntary power permits, active resistive exercise is the procedure of choice for relaxation since it helps restore function as well. Of the other procedures studied, electrical stimulation is the most effective, for it gives the most complete relaxation and, if done with skill, can be used to give relaxation where it is specifically needed.

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A Device for Prophylaxis of Acoustic Trauma

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• *Tests were made to determine whether protection against acoustic trauma was afforded by an ear-plug containing a valve designed to close under pressure of intensive noise.*

The hearing acuity of 34 persons was determined before they participated in target practice on a pistol firing range. Eighteen of them then wore the ear-plugs on the range and 16 did not. Hearing acuity was again determined after the target practice and it was noted that the loss of acuity was considerably less in subjects who had worn the plugs than in those who had not.

THAT ACOUSTIC TRAUMA is an important industrial problem is obvious to any otologist, yet prophylaxis of injury of that kind has been extremely perplexing. Ear plugs of various types have been introduced but they have not been widely used as prophylactic devices because they impair the hearing for conversational voice while protecting against the concussion of occupational noises. Other "ear protectors" have afforded little or no protection.

A study was made to determine the possible prophylactic effectiveness of the Lee Sonic Ear-Valv,® which is designed to control the amount of sound entering the ear, admitting conversational tones but barring damaging noises. The ear valve is diagrammed in Figure 1 and the component parts are shown in Figure 2.

The portion that is inserted is a hollow stem set in an ear-stopper made of silicon. It is designed to fit snugly but comfortably into the ear canal, to hold the unit in the ear and to direct sound through the hollow stem. The cylinder contains the many parts of the mechanism for controlling sound pressure, and in it is a small opening for the sound waves to enter. The intensity of sound is controlled by a valve which is suspended equidistant between two seats by two concentric springs.

This valve divides the passage through which sound must pass, so that the sound waves move the valve back and forth between the seats. The louder the sound pressure, the more the valve is displaced. Since sound waves are alternate, this displacement

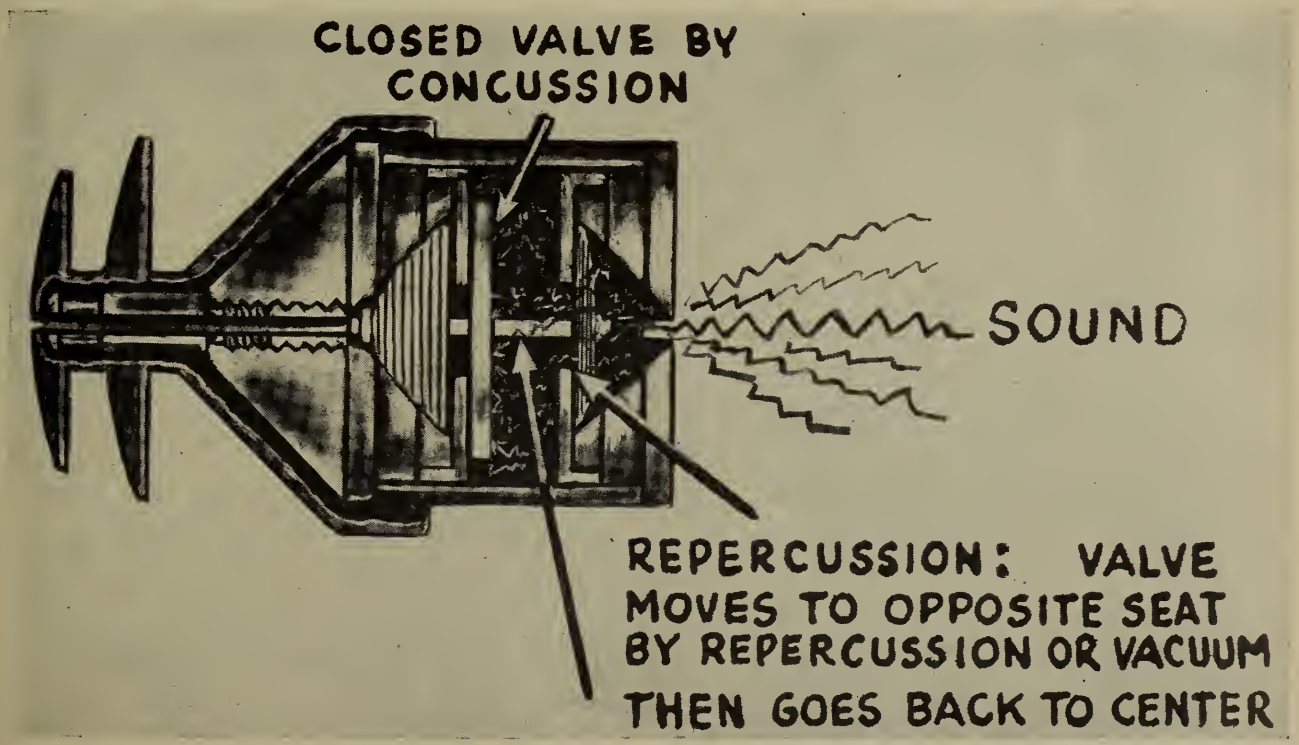

Figure 1.—Diagram illustrating the movement of the valve with diphasic sound waves.

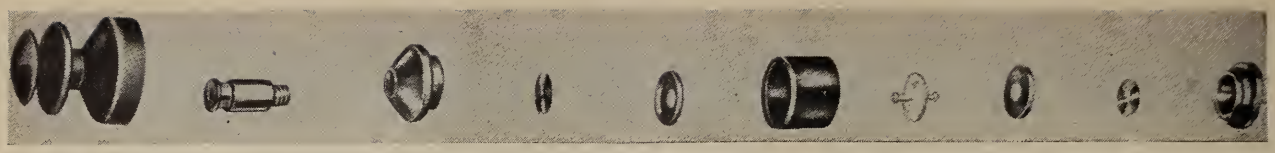

Figure 2.—The component parts and full assembly of the Ear-Valv.

TABLE 1.—*Audiometric Disparity in Hearing After Firing Compared with Test Before Firing*

Without Ear-Valv

	Decibels										
	125	250	500	1000	2000	3000	4000	6000	8000	12000	Totals
1	—5	0	+5	0	—5	—10	—25	—35	—35	—30	—140
2	+5	+5	+5	+10	+15	—10	0	—15	—20	—35	—35
3	0	+5	+5	+15	—5	—5	0	—15	—25	0	—25
4	—10	—5	+5	+5	0	0	—10	—20	—30	—25	—90
5	—5	0	—5	0	0	0	—5	—5	0	—15	—35
6	0	+5	+5	+5	—5	0	—15	—15	—50	—20	—90
7	—10	—5	—5	—10	—10	0	—20	—10	—20	—10	—100
8	0	—5	—5	—5	—5	—10	—5	—25	—25	—35	—120
9	—5	—5	—5	—5	—5	—5	0	—10	0	0	—40
10	—10	—5	+5	+5	0	+5	—35	—10	—15	—15	—75
11	+5	+5	+5	+5	+5	+10	0	0	—10	0	+25
12	+10	+15	+10	+5	+10	0	0	+5	+5	0	+60
13	—5	0	—5	—10	0	+5	0	0	—5	—10	—30
14	+5	0	—5	—5	0	0	+5	—5	0	—5	—10
15	—10	—10	0	—5	0	0	—5	—5	—5	—10	—50
16	+5	+5	+5	0	0	—10	—10	0	—15	—20	—40
Average total loss in decibels (unprotected subjects)											49.7

With Ear-Valv

	Decibels										
	125	250	500	1000	2000	3000	4000	6000	8000	12000	Totals
1	0	0	+10	0	—5	—5	0	+5	—5	—10	—10
2	+10	+10	+5	+5	+5	0	0	+10	—25	0	+20
3	+5	+10	—5	—5	0	+5	0	—5	+5	—15	—10
4	0	+10	+10	0	0	+5	0	—5	0	+10	+35
5	0	0	0	0	+5	+5	+15	0	—5	—30	—10
6	+10	0	+5	+5	+5	+5	0	+5	—5	—10	—20
7	0	0	0	—10	—5	—5	0	0	0	—5	—25
8	0	+20	+25	+5	+5	—15	—10	—10	—5	+5	+20
9	+5	0	—5	+5	—5	—5	0	—10	—10	—15	—40
10	—10	0	0	0	0	+5	—5	+5	+5	—10	—10
11	—5	0	0	0	+5	+5	—5	+5	+5	—10	—10
12	+10	0	+10	—5	0	0	0	0	0	—15	—20
13	+5	0	+5	0	+5	+5	0	+5	+5	—5	+25
14	+5	+5	+15	+15	+10	0	+10	0	+5	0	+65
15	0	0	0	0	0	0	+5	—5	0	+10	+10
16	—5	—5	—5	—5	0	+5	—5	—5	—10	+5	—30
17	—10	—5	—10	—5	+5	+5	+5	—10	—5	+5	—25
18	—5	0	0	0	+5	+5	0	0	0	0	—5
Average total loss in decibels (subjects using Ear-Valv)											1.9

is in two directions and the movement is cyclic. The amplitude of the valve excursions varies with the sound intensity, the passage being completely open when the valve is in the central position and completely closed when the valve is pushed against one seat by a sharp concussive noise. Thus the valve closes the passage to loud and harmful pressure of sound.

METHODS OF TESTING

The testing of ear protectors by physical methods is difficult and the results controversial. Most techniques employ pure tones. However, since for practical purposes the concern is with "white noise," it was decided to use a "field testing" method to determine what protection, if any, was afforded by the Lee Sonic Ear-Valv.

Thirty-four undergraduates in the Naval Reserve Officers Training Corps unit at a university were subjected to audiometric examination before they fired pistols on a firing range and were examined again five minutes after exposure to firing range noises. Eighteen of the subjects wore the device; 16 did not.

The test weapons were .45 caliber pistols. Each subject fired ten rounds in the subterranean firing

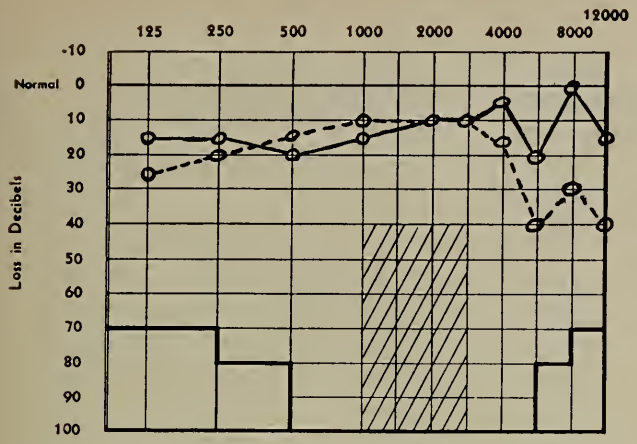

Chart 1.—Audiogram considered typical from the control group not wearing the Ear-Valv. Solid line represents hearing before firing and the dotted line represents hearing after. The two tests were essentially the same except for the characteristic loss in the high tones due to acoustic trauma. This chart was of the tests of Subject No. 4 in the control group.

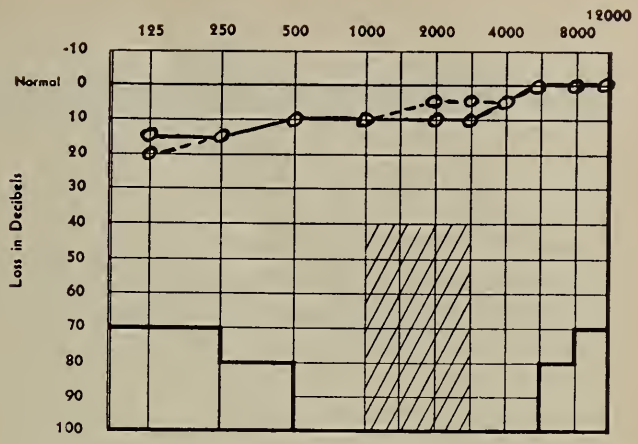

Chart 2.—Audiogram considered typical from the protected group wearing the Ear-Valv. The two tests are essentially the same demonstrating no loss after exposure to acoustic trauma. This chart was made from the results of tests of Subject No. 18 in the protected group.

range of the armory on the university campus. The noise level at the time of firing was measured to exceed 120 decibels. No spectral analysis of the noise was attempted. All the patients had been otoscopically examined before the tests and were observed to have normal membrana tympani. They were examined again after firing, and in neither group was there any visual evidence of trauma to the ear.

All audiograms were taken on one recently-calibrated audiometer, all by the same audiometrist and all under the same conditions. Three threshold determinations were made at each point on the audiogram. All test subjects were exposed to exactly the same amount of gunfire for sixty seconds, and all were familiar with the audiometer, having been tested previously for midshipman examinations. They were all between eighteen and twenty-one years of age.

RESULTS

The results of audiometric tests before and after firing are shown in Table 1, and the greater loss of hearing acuity among subjects who did not wear the Ear-Valv than among those who did indicates the device does protect against the trauma of intense sound. It was spontaneously reported by many of the subjects that there was pronounced relief from the usually painful noise of the .45 caliber pistol.

The accompanying audiograms (Charts 1 and 2) are considered typical of the tests with and without the Ear-Valv.

The Lee Sonic Ear-Valv is manufactured by the Sigma Engineering Company, 1491 North Vine Street, Hollywood 28, California.

The author wishes to express his thanks for the cooperation of Captain Burtnett K. Culver, USN, Commanding Officer, and Major Robert M. Ervin, USMC, officer in charge of the firing range.

9754 Wilshire Boulevard.

The Value of Electromyography in Neurology

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• By detection of muscular fibrillation, a sign of motor nerve impairment, through electromyography, diseases of the motor nervous system can be distinguished from muscular disorders, malingering, and psychoneurotic states. The site of lesion can be determined and the degree of impairment and progress of recovery can be estimated. The method has been used successfully in amyotrophic lateral sclerosis, poliomyelitis, peripheral neuritis and neuronitis, and root compression syndrome, as also for indirect evidence in muscular dystrophy and other myopathic conditions.

GALVANI IN 1791 observed from studies of neuromuscular sections of frogs' legs two fundamental principles: that muscle contracts when stimulated, and that an electrical current is generated during such contraction.

In the light of today's knowledge it is proper to assume from Galvani's observations that the current produced during the contraction of muscle is the electrical counterpart of the motor unit action potential that is generated during voluntary contraction.

Schiff in 1851 dissected the hypoglossal nerve of the tongue of a dog and observed fibrillation of the affected muscle five days later. He further demonstrated that fibrillation is the result of nerve degeneration and ceases as the nerve regenerates.

From Schiff's discovery it is concluded that denervated muscle fibrillates because it has been disconnected from its nerve supply, and that fibrillation ceases either when the nerve is regenerated or when the muscle has undergone fibrosis.

Denny-Brown and Pennybacker[1] reported observing the fibrillation of denervation both in experimental animals and in human beings with amyotrophic lateral sclerosis. They observed that the denervated fibers fibrillate independently.

Weddell, Feinstein and Pattle,[10] the first to apply electromyography in clinical neurology, were able to localize the lesion and follow the course of nerve regeneration in a number of neurological conditions.

Jasper and co-workers[5] also applied electromyography in studies of peripheral nerve regeneration and in studies of poliomyelitis and other diseases of the lower motor neurons. Huddleston and Golseth[4] in 1948 reported upon the value of electromyography in poliomyelitis, and Kugelberg and coworkers[6] found the method useful in the diagnosis of muscular dystrophy. The author[7, 8] has reviewed the clinical use of electromyography in 2,500 cases.

Nerve Injuries

Electromyography in nerve lesions indicates the degree of involvement. If the nerve is completely cut only fibrillation is recorded; no motor unit potentials are generated. In partial lesions, portions of the muscle show fibrillation while in other portions motor units are generated by voluntary efforts. The degree of fibrillation indicates whether the lesion is minimal, slight, moderate, severe or complete.

Nerve Regeneration

The electromyogram has proved to be of great diagnostic and prognostic value in determining the rate of nerve regeneration not only after repair but also in lesions regenerating without repair. Regeneration of the nerve after serum plexitis, neuronitis, neuritis and other reversible conditions of the lower motor neuron also can be followed electromyographically. In many cases nerve regeneration can be detected from four weeks to four months before detectable clinical recovery.

Degenerative Diseases of the Spinal Cord

In early amyotrophic lateral sclerosis, when there may be no other clinical symptoms than, for example, wasting of the hand, an electromyogram may indicate not only fibrillation in both upper extremities but also the beginning of axon interruption in both lower extremities signifying diffuse progressive degeneration of the lower motor neurons.

The electromyographic finding in multiple sclerosis is usually diffuse spotty fibrillation of denervation. In some cases other effects may be suspected; for example, although only the muscles of the hand are affected, lower motor neuron disease may be suspected, but the electromyogram may indicate only peripheral nerve involvement.

By revealing progressive degenerative disease of the spinal cord in the earliest stage, the electromyogram often makes it possible to relate to the organic changes symptoms that otherwise might be attributed to hysteria or psychoneurosis.

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Presented before the Section on Psychiatry and Neurology at the 82nd Annual Session of the California Medical Association, Los Angeles, May 24-28, 1953.

Infectious Disease of the Lower Motor Neuron

In anterior poliomyelitis it can be definitely determined from the electromyogram what specific group of muscles is affected and the extent of denervation. This information is important in planning physical therapy, which is advisable in partial denervation. The same is true in peripheral neuritis or neuronitis.

Root Compression Syndrome

It should be emphasized that root compression syndrome cannot be diagnosed by electromyography unless fibrillation is present throughout a group of muscles innervated by one myotome, or root. For example, in involvement of the fifth cervical root the fibrillation would be present not only in the anterior primary division but also in the posterior primary division—in the sacrospinalis between the fourth and fifth cervical vertebrae, in the rhomboid, the supra-infraspinatus, the deltoid, the biceps and the brachioradialis. A few fibrillations and polyphasic motor impulses observed only in the brachioradialis and the deltoid would not justify the diagnosis of root involvement.

In localizing root involvement of the lumbosacral region it is necessary to test the entire myotome. If the first sacral root were involved, fibrillation and abnormal motor units would be detectable in the gastrocnemius, the hamstrings, the gluteus maximus and the erector spinalis between the first and second sacral vertebrae. As in the example above, a few indications of fibrillation in the gastrocnemius and the hamstrings would not be diagnostic. Electromyographic abnormalities are most pronounced in cases of definite insult to the root that causes relatively definite and prolonged disability; only slight changes or none at all may be shown in cases of temporary attacks causing little disability.

Shea, Woods and Werden[9] found electromyography of great help in root compression syndrome in conjunction with neurological examination and myelography with Pantopaque.® The method may also be useful when studies with Pantopaque indicate doubtful abnormality or none. The electromyogram identifies the site in about 90 per cent of cases when the fifth lumbar disc is involved and only slightly less when the fourth disc is the site. It has been found that the diagnosis of root compression syndrome is much more frequently confirmed when both electromyography and Pantopaque myelography are used than when either is used alone.

Myopathic Conditions

In muscular dystrophy the recorded impulses are not only more faint but also shorter, varying from 1 to 2 milliseconds and up to 150 microvolts; but they do not diminish in proportion to the degree of atrophy, because gradual destruction of the individual muscle fibers reduces the size of the motor unit; when the patient is completely relaxed there is no fibrillation of denervation.

In neurogenic disability the interruption of the axon puts the entire unit out of action, whereas in myopathosis the muscle fibers separately cease to function. The motor impulses remaining in neurogenic disability, therefore, are usually of higher voltage, of longer duration and less frequent than in myopathy, and it may even be difficult to detect them, while in myopathy they are clearly discernible by electromyography and numerous in relation to the degree of muscle atrophy.

In myotonia the burst of impulses may continue for 30 to 50 seconds, but there is no fibrillation. In myasthenia gravis there is first a burst of impulses activated by voluntary efforts diminishing in size, amplitude and frequency in a short period because the patient cannot maintain them. In myasthenia gravis, Prostigmine® causes a temporary reversion toward normal motor impulses.

Electromyograms may be accepted as conclusive evidence of poliomyelitis in persons desiring to qualify for assistance from a poliomyelitis aid fund. Also, muscular dystrophy is sometimes distinguished from either poliomyelitis or upper or lower motor neuron disease by electromyography. Other distinctions possible are those of primary muscle atrophy from progressive spinal muscular atrophy; late distal myopathy from peroneal spinal muscle atrophy (Charcot-Marie-Tooth type), and proximal myopathy from proximal spinal muscular atrophy. In conditions in which muscular dystrophy is combined with disease of the lower motor neuron the relative importance of each can be determined.

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Pseudomyxoma Peritonei

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• *Since it closely resembles widely metastatic intra-abdominal cancer, pseudomyxoma peritonei should always be thought of in cases in which apparently hopeless malignant disease appears to be present. The disease is not often malignant and surgical treatment is palliative in many cases and curative in some.*

Therapy consists of the removal of the appendix in males and of the appendix and ovaries in females.

EVERY ONCE IN A WHILE a surgeon is confronted with a situation in the operating room wherein he is not thoroughly familiar with the pathological condition which presents itself. This is most likely due to the relative infrequency of occurrence of the disease in question. Such a situation may arise in the case of pseudomyxoma peritonei.

Pseudomyxoma peritonei was first recognized, and named, in 1884 when Werth published an article on the disease. Frankel, in 1901, was the first to recognize that the disease could arise from the appendix rather than exclusively from an ovarian tumor as was previously believed. Since that time, occasional articles on the subject have appeared in the literature, each emphasizing some phase of the disease and most of them presenting illustrative cases.

Pseudomyxoma peritonei may be defined as "a condition of the peritoneum in which gelatinous pseudomucinous and/or mucinous material are distributed over its surface either as a homogenous layer or as multiple cystic masses."[2] These masses may penetrate every part of the peritoneal cavity and may completely fill the cavity so that disturbance of bowel function results. The material, which is sticky and gelatinous in consistency and of yellow or brown color, has often been described as resembling frog's spawn. There may be variations in the gross appearance and in the reaction of the peritoneum to its presence. At times the color is gray, white, or brown, the shade depending upon the amount of hemorrhage or fatty material present. Often the gelatinous masses are in the form of huge cysts, some of which connect one limb of the bowel to another. In the great majority of cases the mucinous material originates in either the appendix or the ovary. Some investigators have reported, however, that the disease may arise from less common sources such as omphalomesenteric cysts.[2] At any rate, in order to account for the presence of mucinous material in the peritoneal cavity there must be a rupture of an organ or viscus which contains cells capable of secreting the substance. These organs are principally the ovary and the appendix. Each of these organs may be involved by a pathological condition in which cyst formation occurs. The result in the appendix is mucocele; in the ovary, pseudomucinous cystadenoma.

A mucocele of the appendix is described as resulting from obstruction at its base, usually from inflammation and scarring or kinking. The mucous cells lining the appendicial lumen continue to secrete, and the accumulation of mucinous material results in distention of the organ and the formation of a mucocele. The cysts are usually small but they may become huge. With rupture of the cyst, the thick tenacious mucinous material is extruded into the peritoneal cavity. Supposedly, mucous-secreting cells that are extruded implant themselves and continue to grow and secrete to produce small and large cysts which in turn may rupture and spread the disease further in the peritoneal cavity.[5] Some investigators have expressed the opinion that pseudomyxoma of the peritoneum is not a result of the presence of secreting cells themselves in the peritoneum, but rather comes about through the irritating effect the secretion has on the peritoneum.[1] The relative rarity of the observation of viable mucous-secreting cells in the pseudomyxomatous material supports that opinion.

A similar situation obtains in the ovary, with the disease resulting from a rupture of pseudomucinous cystadenoma of the ovary. Pseudomyxoma is usually of ovarian origin, according to most investigators. However, in some cases it may be difficult to determine whether the disease is of ovarian or of appendicial origin. Disease may occur from both sources simultaneously. Chaffen and Le Grand,[1] attempting to differentiate the two on clinical and chemical grounds, noted that a greater degree of malignancy was associated with pseudomyxoma peritonei of ovarian origin and that the exudate was alkaline, whereas the exudate in cases of appendicial origin

was acid. Most investigators have been unable to confirm this chemical distinction and have noted that the pH of the material varies with individual cases.

It is of greatest clinical importance to determine the actual source of the disease, the degree of malignancy that exists if any, and the most effectual form of therapy. Generally the disease cannot be diagnosed without opening the abdomen. In males the disease almost always arises from mucocele of the appendix, but if the disease is present and the appendix not involved, other less common sources—gallbladder wall cyst, remnant omphalomesenteric cysts—should be investigated. In females the ovaries should be inspected, and if they are not involved attention should then be directed to the appendix, and if the appendix is uninvolved the less common sources should be searched for as in the male. The origin of pseudomucinous cystadenomas of the ovary is not entirely clear, but an accepted explanation is that this condition arises from a teratoma in which the tall columnar entoderm epithelium overrides the other teratomatous elements.[4] The epithelium of the pseudomucinous cysts of the ovary and mucocele of the appendix is identical.

That pseudomyxoma of the peritoneum can result in death is without question. However, death may be caused not by malignant growth but by mechanical complication arising from the presence of pseudomucinous material. One of the common complications resulting from this disease is the development of fistulous tracts between the cysts and the bowel. Cases have been reported in which death resulted from intestinal obstruction due to the large masses of pseudomucinous material in the peritoneal cavity and to the presence of large pseudomyxomatous cysts obstructing loops of bowel. Most often scarring associated with long standing pseudomyxoma peritonei causes obstruction of the intestinal lumen.[3] Masson and Hamrick reported one case in which the patient died in a condition of jaundice and they expressed belief that obstruction of the extrahepatic biliary tree resulted from pseudomyxoma peritonei.[3] Chaffen and Le Grand suggested that small bowel infarction might occur owing to impaired portal venous return caused by compression of the mesenteric veins by packed exudate. All investigators have indicated that in the presence of pseudomyxomatous disease the peritoneum is prone to infection. Extreme care must be taken in removal of the appendix, for the appendicial stump is more likely to break open than it would ordinarily be.[1]

Probably the most important factor to consider is the presence or absence of malignancy in this disease. Chaffen and Le Grand stated that colloid carcinoma of the gastrointestinal tract is readily distinguishable from pseudomyxoma peritonei resulting from ovarian or appendicial disease. They found

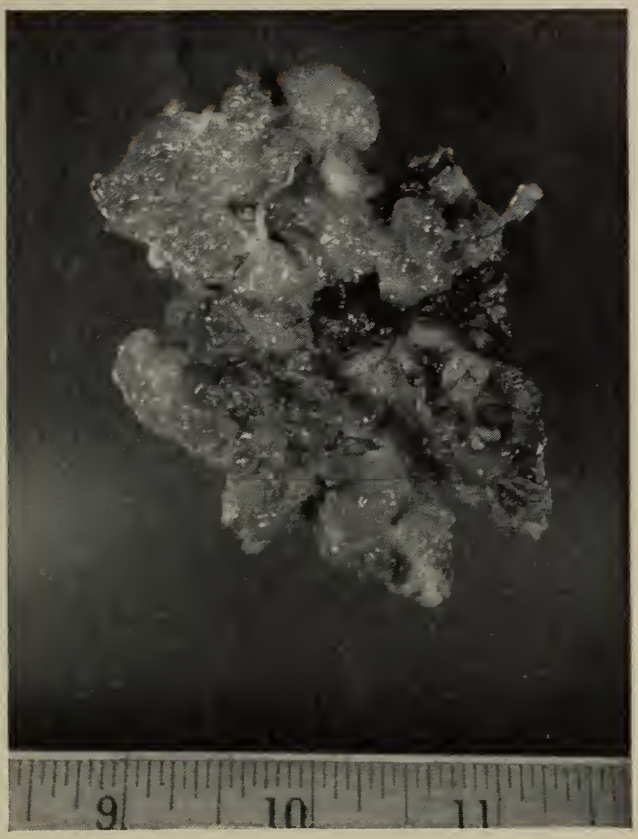

Figure 1.—Gross appearance of pseudomucinous material "frog's spawn" obtained from abdominal cavity of a patient with pseudomyxoma peritonei.

no record of an instance in pseudomyxoma peritonei concomitant with malignant disease of the gastrointestinal tract. They pointed out that colloid carcinoma is distinguishable by the finding of definite clinical evidence of a primary lesion in the gastrointestinal tract, by the absence of a large quantity of freely floating "frog spawn exudate," by the finding of visceral metastasis, and by histologic evidence of malignancy.

In about half the cases of pseudomyxoma peritonei malignant cells can be observed microscopically, but the obvious evidences of cancer (mitotic figures, metastasis, bizarre cell arrangements, etc.) are usually not present[5] and pathologists may disagree as to whether the condition is or is not cancerous. The prognosis is fairly good. Many patients live for years if properly treated and some are cured. Fundamental in therapy is the removal of the source of the disease—in general, the appendix in males and the ovaries and appendix in females. At the same time, as much as possible of the pseudomucinous material should be removed. Rosenfeld,[5] in the firm belief that possibly all cases of pseudomyxoma arise from the appendix, advocated appendectomy in all cases, even those in which the ovaries are apparently the primary source of the disease and even though the appendix appears free of disease. All reports indi-

Figure 2 (Case 1).—Mucocele of appendix, gross appearance and cross section; ovarian tissue with pseudomucinous excrescences.

cate prolongation of life when both the possible sources of the disease have been eradicated. Most observers have indicated that postoperative irradiation is helpful. In many cases pseudomyxoma is mistaken for a spread of carcinoma from some intra-abdominal source and operation is considered hopeless. However, if the disease is recognized for what it is, palliation and perhaps cure can be obtained by surgical treatment, whereas otherwise the patient may go on indefinitely with an unrecognized non-malignant condition. Rosenfeld cited such an instance.

REPORT OF A CASE

A married woman 52 years of age complained of "gaseous indigestion," increasing pain in the right lower quadrant of the abdomen of three weeks' duration, and anorexia. The patient had had cesarean sections 14 and 17 years ago. She had complained of pain in the back for years.

Upon physical examination it was noted that the uterus was about twice normal size. There was left adnexal thickening and a mass about 6 cm. in diameter on the right side of the abdomen.

Total hysterectomy, bilateral salpingo-oophorectomy and appendectomy were carried out. Multiple mucinous excrescences were scattered over the pelvic peritoneum and omentum. The appendix was 7 x 2.5 cm. and on section it was observed to be a large cyst filled with grayish-white mucinous material (see Figure 2). The cyst was lined by a yellow wall and there was a point of rupture at the tip. Microscopically it was observed that the lining of the cyst was tall columnar epithelium. There were multiple small excrescences over the surface of the uterus and ovaries. None of the cells appeared malignant.

When last observed, 30 months after the operation, the patient was well. The body weight was static and no abnormalities were noted in a pelvic examination.

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CASE REPORTS

- **Cortisone and Thyroid Hyperplasia**
- **Hemophilus Influenza Epiglottitis in a 12-Year-Old Child**
- **Acute Ulcerative Colitis Due to Klebsiella**

Cortisone and Thyroid Hyperplasia

HALL G. HOLDER, M.D., and
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MOST OBSERVERS AGREE that in normal humans and rats, administration of cortisone depresses function of the thyroid gland,[2,4,6,7,9,12,14,16,17] as measured by a diminished uptake of I^{131} and a decrease in the serum content of protein-bound iodine. Whether the diminished thyroid function is the result of reduction in the amount of thyrotropin secreted by the pituitary, of interference with the utilization of thyrotropin, or of interference with the synthesis of thyrotoxin within the thyroid gland itself, or is due to other factors, is not yet clear.[1,2,6,14,15] It should be noted that some investigators question that cortisone depresses thyroid function,[3, 8, 11] and O'Neal and Heinbecker[13] have expressed doubt that it has any effect on the gland whatever. Because of the calorigenic action of cortisone, the basal metabolic rate may be reduced, normal or increased after cortisone therapy.[7, 10]

The authors know of no report in the literature of goiter arising during the course of treatment with corticotropin (ACTH) or cortisone. That occurred in the case here reported, but it is emphasized that a causal relationship between cortisone and goiter, although likely in this case, is unproven.

The patient, a housewife 47 years of age, consulted an allergist in November 1951, because of nasal congestion, mucoid nasal discharge and occasional sneezing for four years. Since the onset of a "head cold" in 1947, a troublesome non-productive cough had persisted. Occasional migraine had responded to Benadryl.® Examination showed a condition interpreted as allergic rhinitis. Intradermal skin tests were only mildly positive to environmental materials, foods and bacteria and were negative to pollens and molds. The tonsils had been removed. There was no evidence of sinusitis, and the ears were normal. The lungs were clear. No abnormality had been observed in an x-ray film of the chest in 1949. There was no enlargement of lymph nodes. The blood showed no eosinophilia. A beta hemolytic streptococcus grew on culture of material taken from the throat.

For the ensuing year, up to November 1952, the patient took potassium iodide (enteric coated), 0.3 gm. three times daily; thereafter, twice that amount daily until July 1953. No improvement was noticed from the iodine, but the patient was considerably better when she restricted or stopped smoking. Exacerbations occurred when the weather turned foggy or damp. In October 1952 the patient was sometimes awakened at night by the dry cough, and it was decided to try cortisone. The first day, 200 mg. was given by mouth in divided doses, the second day 100 mg., and diminishing doses thereafter until a maintenance daily dose of 12.5 mg. was reached in four weeks. Thereafter, for eight and a half months, until July 1953, the patient took from 12.5 to 37.5 mg. of cortisone daily, the dose varying according to the severity of symptoms.

In April 1953, the patient noticed a swelling in the neck. Upon examination on May 11, symmetrical enlargement of the thyroid gland was noted. There was some question of nodularity, but no tenderness, and no evidence of toxicity. The blood pressure was 120/80, and the heart was normal. Measurements of the circumference of the neck were as follows: May 11, 37 cm.; May 18, 35.5 cm.; May 25, 35.5 cm.; June 2, 34 cm.; June 22, 37 cm. On the last date, the patient complained of tightness in the neck and persistence of dry cough. The thyroid gland felt firmer, and for the first time puffiness was noted around the eyes. It was interpreted as being due, perhaps, to early myxedema. It was thought likely that the cough was due to pressure of the thyroid gland on the trachea. On June 24, 1953, the basal metabolic rate was minus 10, minus 15.

In preparation for operation, treatment with cortisone and potassium iodide was discontinued and corticotropin was injected intramuscularly in daily dosage of 20 units of Acthar® on July 7, 8, 9, 10, 13 and 14, 1953. The patient was admitted to hospital July 14. A roentgenogram of the chest showed no substernal goiter or other abnormality. The patient noted respiratory pressure symptoms with the neck either extended or flexed. She thought there had been a gradual change in pitch of the voice but no

From the Surgical Service of the Scripps Memorial Hospital, La Jolla.

definite hoarseness. A diagnosis of bilateral, multinodular, non-toxic goiter was made.

The blood pressure was 140/82 and the pulse rate 78. Results of urinalysis were within normal limits. Erythrocytes numbered 4.75 million per cu. mm. of blood and the hemoglobin value was 96 per cent. Leukocytes numbered 20,400—82 per cent segmental cells, 4 per cent stab forms and 14 per cent lymphocytes. The result of a Kline test was negative.

Subtotal thyroidectomy was carried out and the gland was observed to be symmetrically enlarged, homogeneous and relatively avascular. Pressure symptoms were relieved by operation and the voice returned to its normal pitch. Puffiness about the eyes was accentuated for several days after operation, then receded and in two weeks disappeared. On September 23, 1953, the basal metabolic rate was minus 4, minus 12.

Pathologist's report. The tissue removed weighed 35 grams. The gross section was reddish gray, uniform, and of beefsteak consistency throughout. Microscopic sections from four different areas showed small acini, which for the most part were empty and lined by tall epithelial cells (Figure 1). Many acini contained papillary infoldings. The epithelial cells appeared to be actively secreting an eosinophilic, amorphous material. The stroma was sparse and there was no lymphocytic infiltration whatsoever. A diagnosis of primary hyperplasia was made.

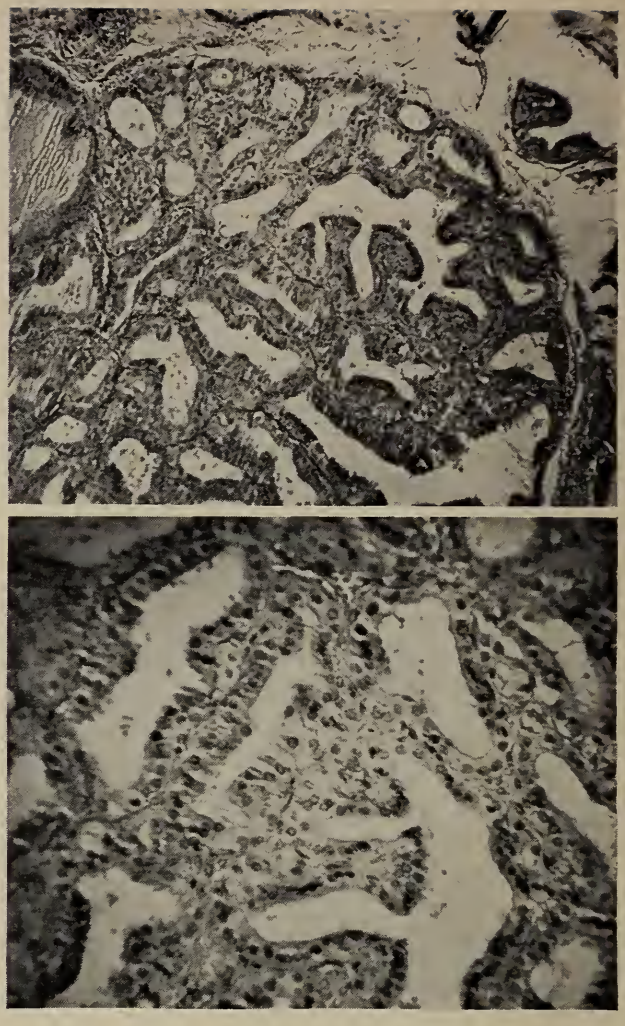

Figure 1.—Hyperplasia of thyroid gland, hematoxylin-eosin stained, green filter. *Upper*, ×100; *lower*, ×225.

DISCUSSION

Although no similar clinical case has been recorded, Halmi and Barker[5] in August 1952, showed photomicrographs of hyperplastic thyroid tissue removed from rats which had been injected with 2 to 5 mg. of cortisone daily over periods of from 20 to 83 days. Pair-fed control animals showed no hyperplasia. More recent experiments by O'Neal and Heinbecker[13] did not confirm the results of Halmi and Barker. The subject is confused by variations in the conditions in experiments, such as differences in the iodine content of the diet, and by the ofttimes grossly excessive doses, by body weight, of corticotropin or cortisone given to the animals as compared to doses for humans.

SUMMARY AND CONCLUSION

Hyperplastic goiter occurred in a woman who was under prolonged treatment with cortisone for allergic rhinitis. There was no evidence of hyperthyroidism, but the histologic appearance of a portion of the gland removed resembled that of primary hyperplasia. Similar histologic structure was noted by Halmi and Barker[5] in rats under treatment with cortisone.

It is suggested that there may have been a relationship between cortisone therapy and the development of goiter in the case reported. Because of the current state of ignorance concerning this possible relationship and in light of the possibility that simply discontinuing hormonal therapy might bring relief, surgeons should be slow to remove diffuse goiters arising in similar circumstances.

2330 First Avenue.

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Hemophilus Influenza Epiglottitis in a 12-year-old Child

KURT M. GUNDELL, M.D., Whittier

A 12-YEAR-OLD BOY was admitted to the communicable disease unit of the Los Angeles County General Hospital because of difficulty in swallowing and breathing of one day's duration.

The patient had been entirely well until two days before admittance when he noted a slight stiffness of both legs which subsided the same day. The following day fever, sore throat and general malaise developed. When he awoke on the morning of the day of admittance the patient noted, in addition, pronounced difficulty in breathing and swallowing. At times he gasped for air but was not cyanotic. When he attempted to swallow water it was forced out through the nose. There was no headache, backache or peripheral weakness, and no visual disturbances were noted. A physician who had examined the patient referred him to the hospital with a provisional diagnosis of bulbar poliomyelitis. So far as could be determined the patient had not been in contact with anyone having a communicable disease.

Except for eczema in infancy and allergic rhinitis in childhood, the patient had always been in excellent health.

When examined upon admittance he was observed to be mentally oriented, acutely ill and in pronounced respiratory distress, but not cyanotic. He preferred sitting up to reclining, and the mouth was kept open. Swallowing was difficult and painful. The voice was moderately hoarse, but there was no stridor. The temperature was 103.8° F., the pulse rate 126 and respirations 30 per minute. The blood pressure was 120/80 (mm. mercury).

The skin and mucous membranes were normal and there were no palpable nodes. The throat was bright red. No pooling of secretions was noted. The gag reflex was not impaired. Only on indirect laryngoscopy was the epiglottis visible. It was red and edematous. There was no formation of membrane about it. The neck was supple, but there was pronounced tenderness along the anterior cervical chain.

Upon examination of the chest, moderate intercostal retractions were noted and there was occasional use of the accessory muscles of respiration. Aeration was poor (vital capacity 525 cc.), but the lungs were clear except for transmitted rhonchi. Thoracic and abdominal respiratory excursions were dissociated. The heart and abdomen were normal. The extremities showed no weakness, all reflexes were equal and active, and no sensory abnormalities were noted.

The hemoglobin content of the blood was 12.0 gm. per 100 cc. Leukocytes numbered 22,450 per cu. mm. and 86 per cent were polymorphonuclear cells. The urine was normal except for 1 plus albumin. The cerebrospinal fluid pressure was 130 mm. of mercury. The fluid contained 4 cells per cu. mm. (lymphocytes), and the protein and sugar content was normal. Hemophilus influenzae, type B, grew on cultures of blood and of material from the nasopharynx.

The patient was placed in a croupette with oxygen. Fluids were given intravenously and antibiotics (penicillin, streptomycin, chloromycetin, and sulfa drugs) parenterally. Respiratory distress increased greatly in the next hour and tracheotomy was performed. There was moderate immediate relief and by the next morning the patient was greatly improved. He became afebrile on the fourth day of hospitalization and was discharged on the eighth day.

COMMENT

The present case is reported because of the infrequent occurrence of H. influenzae epiglottitis in this age group. Indirect laryngoscopy was required to visualize the epiglottis. The difficulty in respiration, phonation and deglutition in a febrile patient might lead erroneously to diagnosis of bulbar poliomyelitis.

From the Los Angeles County General Hospital, service of A. G. Bower, M.D., chief of Communicable Disease Unit.

120 North Painter Avenue.

Acute Ulcerative Colitis Due to Klebsiella

Report of a Case Following Penicillin Therapy

EDGAR ROSEN, M.D., Oakland

CONSIDERABLE INTEREST has recently been focused on the occurrence of acute enterocolitis following the use of antibiotics, particularly those of the broad spectrum group. No published reports, however, were found in which penicillin was the sole agent used before development of this syndrome.

The subject of this communication is a case in which penicillin therapy apparently led to acute ulcerative colitis and pure Klebsiella type 2 (B) grew on cultures of fecal matter.

CASE REPORT

A 47-year-old white man courthouse recorder was admitted to Peralta Hospital, Oakland, July 12, 1953, for a cerebral vascular accident. The past history included asymptomatic hypertension for ten years and excessive ingestion of alcohol.

Until the present hospitalization the patient had never received penicillin. There was no history of any gastrointestinal symptoms except for external hemorrhoids of about ten years' duration with occasional bleeding.

Examination revealed signs of typical left hemiplegia. The blood pressure was 180/110, the heart rate 112, the temperature 98° F., and respirations 24. The lungs contained occasional diffusely arising rhonchi in addition to numerous moist rales over the left lower lobe. Other positive physical findings included mild obesity, acne rosacea, reddening of the tongue, moderate emphysema, slight hepatomegaly and external hemorrhoids.

Results of laboratory studies, including blood cell count, urinalysis, Kahn test, cephalin flocculation, urea nitrogen content of the blood and spinal fluid examination, were within normal limits. Roentgenograms of the chest were normal except for tortuosity and elongation of the thoracic aorta. An electrocardiogram showed no abnormality other than occasional premature ventricular contractions. Intravenous pyelography showed a small parenchymal left renal calculus.

Treatment consisted basically of a 1,500 Calorie, low sodium diet with supplementary vitamins, and sedation with paraldehyde and phenobarbital. In addition, because of the physical signs of pneumonitis, 600,000 units of procaine penicillin daily was given intramuscularly for the first four hospital days. No other medications were employed.

The hospital course was smooth and the patient remained afebrile throughout his stay. The lungs became clear to physical examination in 24 hours, and there was gradual return of strength in the affected extremities. The blood pressure declined in several days to a normotensive level, and was never more than slightly elevated in subsequent determinations. At the time of discharge on July 18, 1953, the patient's only complaint was that of residual weakness of the extremities on the left side.

Second Admission: Directly after returning home from the hospital, three days after completion of penicillin therapy, the patient began to have persistent diarrhea. This gradually increased in severity until six or seven foul-smelling watery stools, containing blood at times in small amounts, were being passed daily. The patient also complained of moderate lower abdominal cramping, and noted some diminution of appetite. No fever or chills were observed.

Following an unsuccessful trial of symptomatic treatment with a bismuth and paregoric mixture, sigmoidoscopy was carried out August 6, 1953. The mucosa was severely inflamed and edematous throughout with numerous confluent shallow ulcers and oozing of blood from many of these sites. Microscopic inspection of aspirated material showed very numerous erythrocytes, moderate numbers of leukocytes and occasional epithelial cells. No amebae were found.

The patient was rehospitalized for further investigation and treatment. The temperature was 98.6° F., the blood pressure 120/82, the pulse rate 100 and respirations 20. The tongue appeared dry and slightly coated. The abdomen was soft and not distended. There was mild tenderness to palpation in the left lower quadrant. The liver edge was no longer palpable. Considerable improvement was observed in the acne rosacea previously noted. Upon neurological examination, residual effects of left hemiplegia were noted. Other physical findings were unchanged from the previous entry.

Results of examination of the blood and urinalysis were within normal limits and agglutination tests for typhoid and paratyphoid were negative. No amebae or other parasites were identified in examinations of sigmoidoscopic aspirates and fresh stools, utilizing techniques including concentrates and stained smears. Cultures of fecal material on blood agar and various inhibitory media done on August 6 and August 8 produced pure growth of a non-motile short plump Gram-negative rod which was at first tentatively classified as Aerobacter aerogenes. It was finally identified, however, as Klebsiella type 2 (B).*

A barium enema with double contrast technique showed many small shallow mucosal ulcers throughout the colon, most numerous in the rectum. The colon was normal in caliber and the wall appeared to be normally flexible throughout. A segment of the terminal ileum was filled and appeared normal.

Treatment was initiated on August 6, 1953, with sulfadiazine, which was discontinued three days later

*Confirmation of the organism as Klebsiella (Aerobacter) was made by the Bacteriology Laboratory of the California State Department of Health. Dr. P. R. Edwards of the Communicable Disease Center, U.S.P.G.S., performed the serological identification. Information forwarded with the report[1] stressed the biological similarity and close serological relationship of the Klebsiella and Aerobacter groups. It was pointed out that until recent years the placement of an organism in either of these groups depended largely on the source of the original culture.

because of microscopic hematuria and crystalluria. Aureomycin was then given for the next five days, pending reports of sensitivity determinations. During these first eight days of therapy the patient continued to pass five or six watery stools daily. There was some symptomatic improvement, however, with subsidence of abdominal cramps and diminution of bowel urgency. The temperature remained normal except for slight elevations on two occasions.

When sensitivity studies were completed on the Klebsiella which was isolated, it was found that this organism was highly sensitive to terramycin, moderately sensitive to streptomycin and chloramphenicol, and resistant to penicillin, aureomycin and erythromycin.

The antibiotic therapy was accordingly changed to terramycin on August 14, 1953. During the next 72 hours the stools became partially formed and diminished in number to three daily. The patient then improved progressively to complete recovery.

Upon sigmoidoscopic examination on August 18, no ulcers were visible and the mucosa appeared normal except for slight granularity.

Additional stool cultures after treatment was begun produced a mixed flora with diminishing numbers of Klebsiella. A culture on August 10 showed a predominant growth of Klebsiella, moderate numbers of diphtheroids and a few colonies of beta-hemolytic Staphylococcus albus. A culture on August 17, after terramycin therapy, showed moderate growth of Staphylococcus albus with only a few colonies of Klebsiella.

All medications were stopped when the patient was discharged from the hospital on August 19, 1953. During the next four days the stools became fully formed and declined in number to one normal stool daily. No symptoms recurred during a follow-up observation period of six months.

DISCUSSION

Analysis of this case points strongly toward penicillin as the cause of the ulcerative colitis. This conclusion is favored by the absence of any previous intestinal disorder, by the onset of symptoms after penicillin therapy, by the pure cultures of a penicillin-resistant Gram-negative organism in the stools, and by the therapeutic response to an agent effective against this organism *in vitro*.

It has been well established that acute enterocolitis may result from the administration of other antibiotics,[2, 3, 4, 6, 7] notably aureomycin and terramycin, as well as chloramphenicol or a combination of penicillin and streptomycin. Bacteriologic studies of the stools in these cases have shown the frequent exclusive or predominant growth of resistant staphylococci. Pseudomonas and proteus[4] have also been found in similar circumstances, but Klebsiella has not been previously inculpated in this manner.

The fundamental pathogenetic factor in enterocolitis of this type is generally acknowledged to be an alteration of the normal bowel flora. Sensitive bacteria are suppressed or eliminated, and rapid multiplication of certain resistant organisms takes place. Although these organisms are ordinarily innocuous within the intestinal tract in smaller numbers, under these conditions their prolific growth is at times associated with an inflammatory reaction in the wall of the bowel. This may be manifested by simple erythema and edema of the mucosa, but ulcerative lesions and pseudomembraneous colitis have also been observed.

Diarrhea is the most common symptom of this disorder, although it does not invariably occur. Nausea, vomiting and anorexia are other complaints that may be encountered. Systemic symptoms are in some instances entirely absent or there may be various degrees of fever, toxemia, azotemia and circulatory collapse, leading at times to death.

Treatment of this condition is based upon the use of supportive therapy and appropriate antibacterial agents. Emphasis upon the frequent etiological role of staphylococci has led to therapeutic trials of erythromycin with favorable results.[2, 5] The case reported here, however, indicates the need to guide therapy by accurate identification of the offending organism and appraisal of its sensitivity.

SUMMARY

A case of acute ulcerative colitis secondary to penicillin therapy is presented. The causative organism appeared to be Klebsiella type 2 (B), which was present in pure growth on cultures of stools.

Cure followed the administration of terramycin, which was the most effective agent *in vitro*.

The subject of enterocolitis due to antibiotics is briefly discussed.

447 Twenty-ninth Street.

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For information on preparation of manuscript, see advertising page 2

EDITORIAL

Labor and Medicine

LABOR'S ILLS in the field of medical care were exposed to the view of the public and several hundred labor leaders in a San Francisco conference concluded March 21.

Called by Mr. George Johns, secretary of the San Francisco Labor Council, the conference spent two days in several panel meetings, exploring avenues for labor to follow in trying to get what it wants in medical care at the price it is prepared to pay.

At stake in this discussion is the pattern of medical care to be purchased by and supplied to members of labor unions in the San Francisco area—some 187,000 workers plus their dependents.

Aside from several decisions reached in terms of straight criticism of things as they are, the results of the conference asked for action on several points where the group felt it had not been adequately cared for in the past. Among other things, the conference reiterated its support of national compulsory health insurance as labor's ultimate goal. It also called for the establishment of labor health centers, to be staffed by physicians employed by labor. It demanded the elimination of "abuses" by physicians in caring for insurance-covered union members and discarded the suggestion that co-insurance, under which the individual would be asked to assume some financial responsibility for his own health care, be accepted as policy.

Behind this conference lies the history of Mr. Johns and his group in the past few years. This history started with the compilation of a "health survey" by Dr. Richard Weinerman, formerly associated with the School of Public Health of the University of California and later with the Kaiser organizations. This study sought to prove that the only way labor could achieve its goal of complete medical and hospital care at the cost it was prepared to pay was to establish its own health centers and its own paid medical staff.

San Francisco physicians rebelled at this suggestion and pointed to its obvious scientific defects, especially its potential proclivity toward reduced standards of scientific medical care. In the face of this opposition, the San Francisco Labor Council has not taken any publicly announced steps to implement the medical center idea.

Now, after months of inactivity, the two-day conference reverts to the medical center plan as the solution to labor's medical care problem, simultaneously admitting that this is simply a stop-gap until national socialized medicine can be secured.

The conference also found that the Kaiser plan of closed panel medical practice in selected hospitals is the "most attractive one" available to organized labor today. This type of practice has been termed by many physicians as one which makes "captive patients" of its members and "captive doctors" of its employed physicians. Medicine as a whole has urged the retention of the free choice principle for physicians and hospitals as the system most likely to provide good medical and hospital care.

When the House of Delegates of the California Medical Association meets next month, the lessons of this labor conference will doubtless come in for considerable discussion. The suggestions of the Medical Services Commission will be before the delegates for consideration and it is likely that still other suggestions will be forthcoming.

Medicine is being called upon to provide a service at a price. Whether or not the price is right remains to be seen. Whether or not medicine can go far enough to meet the present demands, at the price offered, is still a moot question.

The only conclusion obvious at this writing is that a great deal of education will be required in the months to come. Physicians and labor alike will need education in the various phases of medical economics involved in this complex problem. Physicians must meet the ever-present public demand for the provision of good medical care at a rate the public can and will pay. Labor must meet its obligations to the public, to employers and to physicians in recognizing the economic limits beyond which good medical care cannot go. Possibly the familiar pattern of collective bargaining tactics will again emerge, where labor asks for more than it expects to get and settles for less than the maximum demand.

Members of the House of Delegates will have a chance to ponder these considerations, among others, at the forthcoming meeting. The amount of thought given to this problem between now and the meeting date may well have an important bearing on the decisions subject to distillation by the House of Delegates. The end product is most important.

New Health Director

GOVERNOR GOODWIN J. KNIGHT'S APPOINTMENT of Dr. Malcolm H. Merrill as State Director of Public Health brings to this important post a man with a wealth of experience, a wide knowledge in his field and a splendid relationship with local health officers, medical societies, health organizations and all those interested in maintaining the highest possible public health standards. The California Medical Association recommended this appointment to the Governor and is pleased to see the recommendation followed. Dr. Merrill succeeds Dr. Wilton Halverson, who resigned not long ago after a number of years of outstanding service in the position to accept a full-time post with the University of California at Los Angeles.

The Council of the Association has already assured both the Governor and Dr. Merrill of its complete cooperation in all vital matters of public health. Congratulations are due both these men on the appointment now made. The beneficiaries will be the people of the state of California.

LETTERS to the Editor . . .

Can Panels Survive?

THE OPERATION of group plans for rendering medical care preceded the use of prepayment plans by many years, but the development of prepayment plans combined with the group-closed panel system has been comparatively recent. More significant is the impetus for expansion given the group principle by the use of the prepayment technique. It is understandable that business men have been attracted to the organization of closed panel medicine because it lends itself to patterns of commercialization and to objectives with which they are familiar.

The service type of prepayment medical care plans which render care through cooperative organizations of M.D.'s do not have the actuarial experience to be so precise in their costs as other types of insurance. This is so because the doctor alone is responsible for the kind and type of medical care the patient receives and no third party tries to direct it. It does, however, get the doctor the patient wants for himself, and makes use of the principle of prepayment.

The indemnity type of plan has a sound insurance principle so far as the underwriter is concerned: so many dollars will be paid for a listed procedure. If the amount of the indemnity does not cover the cost of the service to the patient, the patient must pay the difference. This defect is eliminated when there exists a contract with those rendering the care to adhere strictly to the schedule. When such an agreement exists, it usually results in the setting up of a closed panel of physicians who are then competing with their confreres on the basis of being on the panel and the price of service alone. This limits the choice of physician by the patient as well as the choice of the patient by the physician.

The closed-panel, utilizing the prepayment plan, offers to sell medical care to the public for a stated premium, the services to be rendered by members of the panel. These panels are usually made up of doctors who are giving attention to cases within their specialty. The free choice of physician by the patient is necessarily limited and the device tends toward the creation of a monopoly. What is the effect of the three different plans on the quality of medical care? This is a difficult matter to assay accurately. It is doubtless possible for good care to be given in any of these plans, where only the medical needs of

the patient are considered, but if costs and profits are given priority the quality of medical care is impaired and the welfare of the patient suffers.

It is on the business side where the three plans really contrast. The service plan agrees to render unqualified and total professional service for all conditions covered in the contract and the doctor agrees to render full service. Here there are no additional costs except in the cases where there is an income limitation on the contract, in which case it functions as an indemnity. In that case, prior financial arrangements need to be made between the patient and the physician.

The indemnity plan requires the payment of a specified number of dollars for a specified procedure on the indemnity schedule. If the procedure is not listed the insurance company names the amount of indemnity. Real comprehensive schedules are seldom listed on the policies. The patient usually believes that the listed indemnity covers all his costs whereas it seldom does. Therefore, the physician needs to discuss the costs in advance of rendering service. It must be done in a frank and fair manner, but this business procedure seems too often avoided by the doctor and is left to some employee in his office. This employee frequently has not had any business experience or training and certainly no medical training, yet she often determines the fee and presents it to the patient. So this third party comes into the picture and strikes the patient in his most vital spot!

The closed panel has a financial system, usually directed by a business manager with training and experience in the field of business administration. The employees of this department are trained in methods for the presentation of bills and also in their collection. The interview with the patient on money matters is approached skillfully and followed through. Where there are additional charges, these are frankly explained and diplomatically and promptly collected. It is possible through the control of medical procedures to greatly influence the cost of the service to the patient. The budgeting of the cost of professional care is also possible because the doctors are usually paid a monthly salary like any other employee. Some of the plans are so skillfully set up legally that they are termed non-profit foundations, etc.

The phenomenal growth of voluntary health insurance plans is a good indication of public acceptance of the principle of prepayment. All of the plans have some desirable features. If doctors are willing to accept indemnities paid by insurance companies this year, will they be willing to accept them next year when they may be lowered by the insurance companies? Closed panels with their fixed and controlled costs can make premiums cheaper. Unions and others are often not able to weigh the intangible assets, but look only at the premiums of other plans. Too, closed panels often employ public relations experts, use direct advertising and inspire free publicity which stimulate interest in their plan. Can one deny that their business methods are productive of business and profits?

Suppose every one of us accepted and promoted the good principles of prepayment then seriously recommended them to every patient that came into our offices. Then if we honestly, by word and deed, sold our patients on the worth of our service and the worth of all good medical service, both the patient and the doctor would be better satisfied. The third step: To ourselves take over the business side of medicine in our own offices—to learn how and when to talk fees and to do it before major expenses are incurred. This will meet with the hearty approval of our patients and will reflect the confidence we have in the value of our own services. It will offer the patient a deserved opportunity to discuss a matter that concerns him. Finally, if we as doctors wish to have control over the practice of medicine, we can only have it through our own organization. Therefore, we need to recommend our own plan to our patients and sell them on the value of membership in it. We should frankly tell them we are pleased with their foresight and render to them better medical care than they can get anywhere else regardless of price.

Can panels survive? You will answer that question by your own service.

J. Frank Doughty, M.D.

231 West Eleventh Street
Tracy, California

California MEDICAL ASSOCIATION

NOTICES & REPORTS

The Treatment of Cancer by John E. Gregory, M.D.

A Report by the Cancer Commission of the California Medical Association

FOR OVER FOUR YEARS the Cancer Commission has been receiving reports of the activities of John E. Gregory, M.D., of Pasadena in the treatment of cancer by a method of his own development. Most of the reports have been in the nature of complaints, some from members of the medical profession and others from non-medical persons. Included in the latter are two science editors of metropolitan newspapers, both of whom reported that they had been subjected to considerable pressure by Dr. Gregory's family and friends. This pressure was directed toward securing favorable publicity in the newspapers concerned for Dr. Gregory's methods.

In January 1953 two of the members of the Cancer Commission, its chairman and John W. Cline, M.D., visited Dr. Gregory in an attempt to secure Gregory's cooperation in releasing some of his material for impartial trial by a competent group of physicians at any reputable institution of Dr. Gregory's choosing in California. No such cooperation could be secured, and in view of the claims being made by Gregory, and because of the very considerable number of cancer patients being attracted by those claims, the Commission undertook an investigation of the Gregory method of treatment.

The investigation has been conducted under considerable difficulty because of Gregory's refusal to provide any assistance whatever, not only through his refusal to supply any of the material under any conditions whatever, but also in other respects which will be apparent in the body of this report.

1. *Nature of Treatment Method*

Dr. Gregory's theories and their application in his treatment of cancer can best be summarized from a monograph which he has published. This volume is entitled "Pathogenesis of Cancer and Applied Therapy" and was published by Bruce Humphries, Inc., of Boston in 1952. On pages 172 and 173 of this text appears the penultimate chapter entitled "Summary." This synoptic chapter presents the following theoretical approach.

> Since some animal cancers have been proved to be due to a virus it is therefore possible to produce cancer with a virus.
>
> The milk factor not only produces cancer of the breast in mice but also "cancer of any tissue in the mouse, depending either on abnormal hormonal physiology or on the location of irritants."
>
> Mouse cancer is identical to human cancer.
>
> A virus has been found in over one thousand human cancer tissues tested, but not in benign tumors. The virus has been cultured and injected into animals producing various types of cancer.
>
> The virus produces specific antibodies in animals, a complement fixation test in human serum is "88% diagnostic for cancer."
>
> An antibiotic has been developed for the cancer virus,

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and its action can be demonstrated in the electron microscope.

The amount of virus present is in direct proportion to the grade of malignancy.

Although Gregory has employed several different agents in cancer during the past few years, his latest, which is also the material which the Commission was finally able to secure for testing, he designates as Gregomycin. The final chapter of the monograph states that Gregory isolated Gregomycin at his home, and he informed representatives of the Commission that the antibiotic was isolated from the soil on his estate in San Marino. Gregory further states in his text that Gregomycin destroys both Gram-negative and Gram-positive organisms and "apparently destroys the cancer virus." He further states that his work suggests that Gregomycin should be tried on acute virus infections.

Several other facets of the Gregory concept of the cause and control of cancer are developed in his monograph. Steroid hormones are used to a considerable extent and Gregory illustrates the theoretical association of hormone treatment with the theory of the virus cause of cancer in the following example:

"A case of cancer of the breast, Grade IV, was treated with testosterone, and after one month became Grade III; after another month it became Grade II. The concentration of virus in the Grade IV cancer was high, in Grade III it was diminished, and in Grade II was markedly diminshed. This shows that the same pituitary hormone which stimulates the malignant cell to grow stimulates the virus to grow also."

A supplementary measure in Gregory's management of cancer is in dietary restriction. The groundwork for his ideas on diet in the management of cancer is again to be found in his free association of the disease in animals and humans. On page 143 he states that "there is no doubt that cancer in animals is the same disease as in humans." This remarkable statement is followed by a claim of having developed cancer in animals by feeding them cancer tissue. From these claims are developed the following recommendations:

1. Public health departments should start an inspection service to locate and discard cancerous tissues from human consumption.

2. The milk factor having been proved to be a causative factor of breast cancer in mice, pasteurization of milk should be of value in preventing the spread of cancer to humans and steps should be taken to make appropriate cancer tests in cows.

3. Gregory states that he has found up to 70 per cent eggs containing the cancer virus but never in eggs from hens fed only on greens and grain.

4. Even with pasteurization of milk and thorough cooking of eggs and meat some patients with cancer may still be highly allergic to the "vaccine" remaining in the food.

5. Some patients with leukemia can be maintained in excellent health on a meat-free diet, but will undergo a serious acute exacerbation after ingestion of meat.

6. Some transfusions may be harmful to patients with leukemia because of the cancer virus in the donor's blood.

7. B-complex vitamins will improve the action of the liver and cause it to destroy steroid hormones, thus cutting down the excess stimulation to certain cancers.

8. Cancer patients should be kept on a diet free of meat and fat and a high fruit diet is of value.

Gregory also advocates the use of conventional methods of treatment where the disease is in an early stage. The introduction to "Pathogenesis of Cancer" says that "cancer research has reached another milestone and perhaps it is worth while to bring everyone up to date on the results of this research." This is followed by a statement that the book in no way suggests that "we can neglect essential and early surgery or radiation in treating cancer."

2. *Proponents*

The only person known to the Commission as concerned in the use of "Gregomycin" is its originator, John E. Gregory, M.D., and certain employed medical assistants he has had for varying periods of time. Although Dr. Gregory reported in a telephone conversation several months ago that his antibiotic agent was being used in a testing program in an "eastern medical center," he refused to divulge any further information.

Dr. Gregory owns his office building, completely occupied by him, at 45 South Mentor Avenue, Pasadena. On December 5, 1944, Articles of Incorporation No. 78581 were filed for the Pasadena Research Laboratories with directors listed as John E. Gregory, Evelyn L. Gregory and Russell Bavouset. This company has no discoverable interest in research and it manufactures and distributes pharmaceuticals, chiefly vitamin and hormone products. The organization was set up on February 10, 1942, by J. E. Gregory who stated that he and Harry Stotesbury were partners. On March 4, 1942, suit was filed by Harry C. Stotesbury against Gregory in the Pasadena Civil Court, Stotesbury asking $10,000 damages from the dissolution of this partnership. The case was settled out of court. On July 28, 1943, an item of record shows that John E. Gregory executed a bill of sale for the Pasadena Research Laboratories to Lydia Meleen for the sum of $10. A photostatic copy of another bill of sale dated August 19, 1943, shows that

the Pasadena Research Laboratories was reconveyed to John E. Gregory, M.D., by Lydia Meleen for the sum of $10. As of April 21, 1953, the financial report of the Pasadena Research Laboratories showed total assets of $185,197.

Early in 1948 in the District Court of the United States for the Southern District of California, Central Division, Pasadena Research Laboratories Inc., a corporation, and Russell R. Bavouset were found guilty on five counts of violations of the Federal Food, Drug and Cosmetic Act in that they "did unlawfully cause to be introduced into interstate commerce" adulterated and misbranded drugs. The corporate defendant was fined $3,000, and Bavouset was placed on five years' probation. The decision was appealed to the United States Circuit Court of Appeals for the Ninth Circuit and on July 16, 1948, No. 11690, the judgment of the lower court was affirmed (169 Fed., 2d., 375).

Dr. Gregory's monograph, "Pathogenesis of Cancer," carries a statement that the research therein reported was done by Gregory working through the Fremont Foundation, a non-profit corporation for medical research, and the biography on the jacket of the book states that the Foundation was started in 1947. A careful search at the office of the County Clerk in Los Angeles, including search of the records in the "fictitious names" section, and also in corporations, showed nothing pertaining to the Fremont Foundation. The Library of the Health Department of the City of Pasadena also had no information on this Foundation.

A sketch of the author on the jacket of Gregory's book also states that "he has been on the attending staff of the Los Angeles County Hospital and White Memorial Clinic for several years as assistant professor of medicine at the College of Medical Evangelists." The fact is that Gregory has been off the staff of both institutions for some years, and inactive at both since about 1939. Although he has held other hospital appointments in the past, at the time of the Commission's investigation Gregory had hospital privileges only at the Alta Vista Hospital in Altadena and the Behrens Memorial Hospital in Glendale.

3. *Experimental Evidence Offered*

The experimental evidence offered by Gregory is best reviewed in his monograph "Pathogenesis of Cancer," Chapter II, entitled "Electron Microscopy of Human Cancer Virus." The method employed is described as follows: "Human malignant tissue is taken directly from surgery, and with absolutely sterile technic, ground up completely with mortar and pestle, diluted with triple distilled water, and filtered through a Berkfeldt filter. The filtrate was then examined in the electron microscope. Over 1,000 malignant tissues and the same number of normal tissues or benign tumors were examined in this way." Gregory states that spherical virus-like bodies 0.1 microns in diameter were found in 100 per cent of the malignant tissue but never in the benign tumors or normal tissue. He states that these objects have cell detail including cell wall, nucleus and cytoplasm. They do not disappear when left under the electron beam for as long as one hour. Many electron micrographs reproduced in the monograph purport to show the identical cancer virus in malignant neoplasms in the mouse, human breast, leukemia, hypernephroma, colon, stomach and other sites. Gregory's original agent was an inactivated filtrate of cultures of *Bacillus subtilis Tracy*, following his observation of the phagocytic action of this bacillus on the alleged cancer virus. Apparently since his discovery of Gregomycin this earlier agent has been abandoned.

Gregory published two articles in the *Southern Medical Journal*, "Virus as a Cause of Human and Animal Malignancies," February 1950, and "*Bacillus subtilis* as an Antibiotic in the Treatment of Cancer," May 1950. Through the influence of the editor of the *Southern Medical Journal*, who also wrote a laudatory editorial on the occasion of the publication of Gregory's monograph, Gregory had an exhibit at the annual meeting of the Southern Medical Association on two occasions, in 1948 and 1952.

Gregory also claims to have reproduced cancer in animals by injection of cultures of the virus which he has so regularly identified in human cancer.

4. *Clinical Evidence Offered*

On the occasion of the visit of the Commission's representatives with Dr. Gregory in January 1953 he described a series of 14 patients whose histories are included in his monograph, and some of which will be described below.

On that occasion he also brought five patients into the room, and these patients were seen under the following handicaps: No facilities for adequate examination were provided and only a brief "spot" examination was possible; no written records were offered, Dr. Gregory reciting the details of each patient's history from memory; no microscopic sections or radiographic studies were available for review. These five patients were as follows:

1. A woman who had had radical mastectomy for an extensive carcinoma of the breast had developed recurrent local disease one year prior to this occasion, for which x-ray therapy had been given. She then developed nodes in the supraclavicular space and some new recurrences on the chest wall and Dr. Gregory stated that his treatment had kept the disease under control for eight months. Local examination showed small nodules of apparent recurrent disease on the chest wall at the site of the radical mastectomy. There were small hard supraclavicular

nodes up to 1.5 cm. in diameter characteristic of metastases.

2. An 8-year-old girl who had been treated by thyroidectomy, x-ray treatment and radioactive iodine for a papillary carcinoma of the thyroid. She then came under Dr. Gregory's care and at the above time had residual tumor in the right submandibular area.

3. A woman with recurrent carcinoma of the breast involving the chest wall and axilla following surgical treatment and irradiation, under treatment for some months by Gregory; examination showed a small area of residual local carcinoma.

4. Another woman with carcinoma of the breast and local recurrence and lymphedema of the homolateral arm following mastectomy, in whom Gregory believed that his treatment has maintained control of the local recurrence since the summer of 1952 (six months or less).

5. A woman with bilateral breast carcinoma, originally treated surgically by bilateral radical mastectomy, who developed a recurrent left axillary mass which was enlarging and since the use of Gregory's agent this area of disease has regressed to a fairly small but obvious residual focus of carcinoma.

In Chapter VI of the Gregory monograph case histories of 16 patients are presented, presumably offering the best evidence for the effectiveness of his treatment that Gregory could muster. The longest period of survival in any of these cases after the onset of Gregory's treatment is two years. In one patient treatment had only been under way for five months and in still another treatment was *just starting*. With one exception all of these patients had previous treatment by conventional methods in their immediate past. In addition, the behavior of the disease in some of them was simply a manifestation of the expected natural history of the process. In many instances it was impossible to determine whether survival and apparent control of the disease was due to treatment or to natural causes. Reasonable examples of these factors are as follows:

Case 2. (Page 80 of monograph): Mrs. M. L. treated in 1946 by x-ray and radium therapy for carcinoma of the cervix. In June 1947 exploration was done and an apparently inoperable 5 cm. metastasis in the broad ligament and pelvic wall was discovered. She was seen by Dr. Gregory in February 1948 with what he describes as a large cancer of the cervix involving the bladder and rectum and extending up into the abdomen where there was a palpable tumor 8 inches long and 6 inches in diameter. The patient had both vesicovaginal and rectovaginal fistulae. Dr. Gregory started treatment with daily injections of testosterone along with daily injections of his antibiotic. Three months later she was up and around and at the time of reporting she had been well for 24 months. The photomicrograph is apparently taken from the original biopsy in 1946.

Two obvious possibilities tend to make this case invalid. One is the fact that occasionally women following heavy irradiation for pelvic carcinoma develop a very impressive productive radiation reaction of the soft tissues of the pelvis which can exactly mimic very extensive recurrent carcinoma. Second, carcinoma of the cervix forming so bulky an abdominal mass is so rare as to be a museum item, for the disease almost invariably causes death by ureteral obstruction, uremia and sepsis long before the tumor attains any such size. The combination of the antibiotic with testosterone is further invalidation of this case, and, failing microscopic evidence to the contrary, the bulky abdominal mass may have been an ovarian neoplasm which proved responsive to testosterone.

Case 7 (Page 94 of monograph): Mrs. D. O., aged 56, had a uterine sarcoma for which repeated operation had been done and at the last procedure "the surgeons were of the opinion" that they did not get the entire tumor. Three months later she was seen by Dr. Gregory with a 35-pound loss of weight, severe jaundice and an enlarged nodular liver extending below the umbilicus. Three months after beginning treatment with Dr. Gregory the jaundice and ascites had entirely disappeared and the enlarged liver had returned "so much to normal that it was impossible to feel the liver edge."

This case history again suffers from lack of microscopic proof of involvement of the liver by cancer, particularly as the pattern of spread of uterine sarcoma is almost invariably to the lungs rather than to the liver. The possibility of hepatitis producing hepatomegaly and jaundice with eventual recovery with supportive treatment is too strong to be denied.

Cases 14 and 15 (Pages 112 and 117) are the histories of women in whom both operative and x-ray therapy were given for carcinoma of the ovary. The antibiotic is given credit for their "recovery," the first woman for a period of six months when she died of a cerebral hemorrhage, and the second for a period of one year, despite the fact that the combination of prior treatment and the natural history of the disease frequently produce temporary control of the disease.

Case 1 (Page 79) presents the only apparent undiluted effect of the antibiotic. The patient was a man 55 years old with multiple myeloma. Assuming that no prior treatment was given the patient has remained well for 24 months after the institution of "antibiotic" treatments. This one case, however, may be only illustrative of the fact that multiple myeloma also is occasionally known to undergo periods of spontaneous remission.

In Chapter 15, a summary of "all other cases treated" is offered, and the introduction to this chapter states that in the following cases that will be

mentioned the patients either had surgical or x-ray treatments along with the antibiotic, or had been treated less than one year. The fallacy of crediting any new agent for whatever control such patients may have will be obvious to any experienced clinician. This chapter concludes with a statement that four groups illustrate different aspects of cancer treatment with the antibiotic. (1) Patients treated by conventional means and the antibiotic, in which it is admitted that operation and radiation may have produced the cure. (2) A group receiving antibiotic for recurrent tumors, improved for about three months, then becoming worse and dying of their disease. It is stated that these patients "probably developed strains of virus resistant to the antibiotic." (3) The third group is one in which the patients "did fairly well" but died of other causes. (4) A fourth group represents those "in which the disease was so far advanced that they died shortly after initiation of treatment."

Each of these groups is said to number about 20 or a total of 80 patients. At the time of the interview with Dr. Gregory in January 1953 he stated that he had treated a total of about 100 cases of cancer and that "20 per cent have cleared up."

5. *Autopsy Data Offered*

None.

6. *Experimental Evidence Developed by the Cancer Commission and Independent Investigators*

After repeated refusals by Dr. Gregory to supply the Commission with any of his agent for testing of any sort, it was finally possible to secure an adequate amount of the Gregory preparation from certain patients to whom he had given the material for administration at home. In each instance the material was adequately identified as to its origin, either by Gregory's name, or the designation, "Gregomycin," appearing on the label of each vial used for testing purposes.

The following report was received from H. E. Pearson, M.D., Professor of Public Health, University of Southern California School of Medicine and Chief Medical Microbiologist for the Los Angeles County General Hospital.

"Culture of this fluid on blood agar plates and in thioglycollate broth yielded no growth. Antibacterial activity was assayed in tryptose broth. In a final dilution of 1:10 the material showed *no* inhibition of growth of organisms after 24 hours' incubation at 37°C. The organisms used were as follows: *Micrococcus pyogenes var aureus, Streptococcus pyogenes, Escherichia coli, Pseudomonas aeruginosa, Klebsiella pneumoniae, B. subtilis.*

"Antiviral activity of the fluid was tested against the PR8 strain of influenza Type A virus. Albino mice weighing 20 to 30 grams each were used. Groups of 10 mice were inoculated intranasally each with .05 cc. of 10^{-5} and 10^{-6} dilutions of egg passaged virus. Of the mice which received the 10^{-5} dilution the test group of 10 mice was inoculated intraperitoneally each with 0.3 ml. of 'Gregomycin.' The control group of 10 mice received saline intraperitoneally. Intraperitoneal injections were given repeatedly 12, 24, 48, 72, 96 and 144 hours after the virus injection. All surviving mice were killed on the tenth day following viral injection and the lungs examined to determine the percentage of lung involvement which might be attributed to viral infection. Results were as follows:

	No. of Survivors				
Percentage of Involvement:	0	25	50	75	100
Gregomycin (One dead 7th day—50% lung involved)	....	1	3	5	....
Saline (One dead 9th day—100% lung involved)	2	3	1	2	1
Virus Control—Received 10^{-6} virus intranasally. No intraperitoneal injection	6	4	....	....	....

"The above data indicate that Gregomycin did not alter the course of influenza infection in mice following a minimal infective dose of the virus."

For purposes of testing the preparation against animal neoplasms of known sensitivity to other agents, a supply of Gregomycin was submitted to Nathan B. Friedman, M.D., Director of the Division of Laboratories, Cedars of Lebanon Hospital, Los Angeles, a pathologist with wide experience in experimental neoplasms and their response to many different agents. Dr. Friedman's report is as follows:

"A mice bearing Cl300 neuroblastoma and C_3H mice bearing an epidermoid carcinoma were treated with courses of therapy up to 18 doses. The treatment was daily except for one day's rest over weekends. The daily dose was 400 roentgens of radiation, 0.5 milligrams per kilogram of nitrogen mustard and .075 cc. of the test solution (Gregomycin).

"Other animals were treated by direct injection of tumor masses with 2 mg. per kg. of nitrogen mustard, 1 mg. per kg. of TEM, 2 mg. per kg. of aminopterin, 0.25 cc. of colloidal chromic phosphate (0.5 mc.), 0.1 cc. of physiological saline and 0.1 cc. of test solution.

"Tissues were examined histologically at appropriate intervals.

"The characteristic reaction to radiation and the similar effects of the other known therapeutic agents were evident in the tumors. There were no differences between the tumors treated with the test solution and the controls.

"Certain known effects on the intestinal mucosa of the chemotherapeutic agents employed were also noted in the treated tumor-bearing animals. No such effect was noted in the animals treated with the test solution."

Further samples of Gregomycin were submitted to John B. Field, Associate Professor of Medicine, University of Southern California School of Medi-

cine, who is in charge of a project for the testing of agents of possible chemotherapeutic value, particularly against strains of leukemia in animals. The report of Dr. Field is particularly pertinent because of the several cases of leukemia which Gregory quotes as having benefited from his antibiotic.

"The material was tested against acute lymphatic leukemia L4946 transplanted into mice of the Ak strain. The results of the test are as follows:

	Survival	
	Average	Range
Controls	13 days	12-14 days
Test group	13 days	8-16 days
Positive controls (Amethopterin, 1.5 mg. per kilo)	18 days	16-20 days

"The Gregory material was given 0.5 cc. per day intraperitoneally which calculates to a relatively large dose when compared with human dosage. The test material as well as Amethopterin were given in the usual fashion beginning 48 hours before implants of the leukemia and injected daily in the stated dosage.

"It can be concluded that the test material had no influence on the survival of Ak mice with an acute leukemia, whereas in very small doses Amethopterin significantly prolonged the lives of the leukemic mice. Furthermore, every mouse in the test group succumbed with frank and general evidence of leukemia."

7. *Clinical Evidence Developed by the Cancer Commission*

Other than the five patients seen at Dr. Gregory's home and described under section four above, there seemed to be no possibility of the Commission's developing any clinical evidence of its own as the supply of the agent procured was adequate only for the laboratory testing reported above. As an indirect approach, however, all the death certificates signed by Dr. Gregory or his assistant were reviewed at the Pasadena Department of Health for the years 1947 to 1952, and for the years 1948 to 1952 in the cities of Los Angeles and Glendale. Those certificates listing cancer as the cause of death totalled 82, and were distributed by anatomical primary sites or by system as follows:

16 leukemia (lymphatic, acute and chronic)	2 multiple myeloma
7 colon	2 lymphosarcoma
2 gallbladder	1 parotid
3 skin	4 ovary
3 pancreas	3 malignant melanoma
3 lung	1 prostate
5 stomach	3 carcinomatosis
14 breast	1 testicle
2 rectum	1 esophagus
3 cervix	1 salpinx
3 uterus	1 cecum
	1 sarcoma humerus

More recently, a few of the patients treated by Dr. Gregory at a local hospital have been reviewed by a special committee of the medical staff appointed for that purpose. The Commission gratefully acknowledges the cooperation of this hospital committee, the conclusions of which are as follows:

"Dr. Gregory invited the Committee to his office. . . . At that time he brought in seven patients who, according to him, had been greatly benefited by the use of Gregomycin. There were 3 carcinoma of the breast, 1 carcinoma of the ovary, 1 carcinoma of the peritoneum (primary undetermined), 1 papillary carcinoma of the thyroid, 1 melanoma. All of these patients were treated by conventional methods of therapy. All of these patients were examined carefully by at least two members of the Committee . . . laboratory and operative reports were verified in most cases and pathological report or slides were available for review.

"It was the opinion of the Committee that the clinical course of all seven cases probably was uninfluenced by the use of Gregocin or Gregomycin, as it was our opinion that we have all seen many cases similar to these . . . without any antibiotic or cancer drug being used.

"We went over the case records of 25 death cases from the files of the hospital during the year of 1953. All were operative failures or inoperable cancer . . . all received Gregocin for weeks or months in the hospital . . . many were previously treated for many months at (Gregory's) office but this data, of course, we have not been able to obtain, since he will not cooperate. It was our opinion that none were benefited by Gregocin or Gregomycin. The clinical courses were exactly as would be expected by the use of conventional treatment methods.

"It is our opinion that Gregocin or Gregomycin has been shown to have no clinical benefit in the treatment of cancer. Dr. Gregory has not complied with the request of the staff to give us a supply of Gregomycin for experimental trial in animals. No inoperable cases were presented to the Committee to study the effects of Gregomycin or Gregocin alone.

"Recommendations to the Executive Committee:

"1. Patients in the hospital or next of kin should be required to sign consent forms before any experimental drug be used for cancer.

"2. It is the opinion of the Committee that Dr. Gregory has been given ample opportunity to prove the merit of his drug for cancer patients in the hospital. Inasmuch as we have seen no cases benefited by the use of his drug, we recommend that it no longer be used in the hospital."

[The full report of this Committee, and its detailed account of the cases reviewed, are in the files of the Cancer Commission.]

Mr. C. H. G. visited the office of the secretary of the Cancer Commission on August 13, 1953, stating that he had been taking treatments from Dr. Gregory for almost four years for "colitis." About June 1953, he said, Dr. Gregory examined him and found a suspicious area in the rectosigmoid. The patient reported that Dr. Gregory told him that if he would go regularly for treatment Dr. Gregory would pre-

vent or cure a cancer. The patient was advised by the Commission secretary to go immediately to a reputable physician in his home city of Oakland for further examination and for appropriate operation if a neoplasm was found. A few days later the patient saw Dr. Gregory again and the latter tried to rush him into a hospital. The patient refused and returned to Oakland where on August 20, 1953, a carcinoma of the sigmoid was removed. Following operation he attempted to secure some of the medicine from Dr. Gregory. Dr. Gregory said that the treatment was still available only to patients who are under treatment in his office, since it is still an experimental treatment. Dr. Gregory stated that he could send the medicine if the patient wished and then he could be examined by Gregory from time to time. The patient secured two 30-cc. vials of the medicine from Dr. Gregory for the sum of $21.09. The patient stated that Dr. Gregory had made numerous claims such as that the A.M.A. had visited him and approved his work, and that if the patient would come to see him every four months he would never have cancer.

A Ukiah physician informed the Commission on June 24, 1953, that a patient with squamous cell carcinoma of the cervix was being treated by Dr. Gregory with Gregomycin with no apparent improvement.

The Commission has a signed and witnessed statement from the husband of a woman suffering from multiple myeloma who was assured by Dr. Gregory that he could definitely control her pain if he would dismiss any other physicians from the case. Dr. Gregory accepted the word of the husband as to the diagnosis, and to the best of the husband's knowledge Dr. Gregory at no time reviewed any of the evidence in the form of x-ray studies, laboratory evidence or biopsy. The patient was given injections by Dr. Gregory at her home every night for over two months and at the end of six months the patient was improved and Dr. Gregory stated that he was going to cure the patient. Later he told the husband some six or eight times that the patient was undoubtedly going to get well. At the six-month interval she was allowed to get up and walk and developed very severe pain in her leg which was due to a pathological fracture. Dr. Gregory removed her to a hospital and put her in traction, still insisting that she was going to recover completely. Eventually the pain became extremely severe and as many as six or seven injections a day were given but only emperin and codein were given for her pain. The labels on the vials from which the injections were given were usually removed but on one bottle the husband saw the name "Gregomycin" and several others in which the designation all started with "Greg." Dr. Gregory charged $15 per week for the first 18 months of care but during the terminal period before he was finally discharged from the case he sent a statement for a fee of $475 for two months. The husband tried to contact Dr. Gregory concerning a reduction of his statement but Dr. Gregory refused to talk to him.

9. *Autopsy Data Reviewed by the Commission*

It has only been possible to obtain paraffin blocks of tissue from two autopsies on patients treated with Gregomycin until a week or less before death. Review of sections of these blocks by three pathologists, John W. Budd, M.D., Louisa E. Keasbey, M.D., and James E. Kahler, M.D., indicated no satisfactory evidence of any chemotherapeutic effect on the neoplasm.

10. *Consultant and Other Reports*

Opinion concerning Dr. Gregory has been limited to an investigation of certain statements which he has made to representatives of the Cancer Commission. Only three of these will be recited.

Following the urgent request of January 1953 that he designate some institution in California for a trial of his agent, Dr. Gregory said that he would approach the president of the College of Medical Evangelists concerning the possibility of such trial. During the following months the president of that school informed the Commission on two occasions that he had not been approached by Dr. Gregory. On July 8, 1953, the chairman of the Commission wrote to Dr. Gregory reminding him of his proposal. Under date of July 27, 1953, Dr. Gregory stated in a letter to the chairman of the Commission that he had had difficulty in contacting the president of the College of Medical Evangelists, but he was able to "contact Loma Linda," and that "they have not been able to have time to review the work." An inquiry was then addressed to the president of the College of Medical Evangelists and on August 9, 1953, he replied that investigation had been made and no evidence found to indicate that Dr. Gregory had made any approach, formal or informal, to any of the administrators or responsible faculty members, either in Los Angeles or at the Loma Linda campus.

Dr. Gregory also informed a representative of the Cancer Commission that in the year 1950, when he was en route home from the International Cancer Conference in Paris, he had been invited to go to Bethesda, Maryland, to address a group of the staff of the National Cancer Institute. Dr. Gregory stated that the Institute was able to arrange a meeting of many of its staff members on a Saturday evening especially for Dr. Gregory's convenience, that he presented his theories and his experimental and clinical work in some detail and that his presentation was received with very considerable enthusiasm. This extraordinary account was investigated by addressing a letter to J. R. Heller, M.D., Director of the National Cancer Institute, who replied on Novem-

ber 3, 1953, that he had ascertained the situation concerning Dr. Gregory's visit to the National Cancer Institute and the facts were as follows: Dr. Gregory stopped at the Institute on his way home from Paris and saw only Mr. Vernon Riley, a member of the staff of the laboratory of biochemistry. Mr. Riley told Dr. Heller that he talked for about 20 minutes with Dr. Gregory, answered questions courteously and furnished Dr. Gregory some reprints. Dr. Heller was not able to find knowledge of any meeting or gathering to which Dr. Gregory was invited nor was he able to uncover any responsible person other than Mr. Riley with whom Dr. Gregory talked. Dr. Heller further stated that so far as he knew no member of the Institute had endorsed Dr. Gregory's theories or findings relative to the presence of viral bodies in human cancers.

Still another example involved a noted scientist in cancer research, John J. Bittner, Division of Cancer Biology, University of Minnesota. One of Dr. Bittner's achievements has been the identification of one of the primary causes of breast cancer in mice, an agent transmitted through the maternal milk which has the properties of an infectious agent or virus. During the interview in January 1953, referred to above, Dr. Gregory stated that Dr. Bittner had been a close personal friend of his for some years, and that he had discussed his research and theories with Dr. Bittner, who had endorsed all his claims concerning the virus etiology of cancer.

Such support from so eminent a scientist, if verified, warranted respect, and a letter of inquiry was sent to Dr. Bittner.

Under date of January 31, 1953, Dr. Bittner wrote as follows: "While it is possible I have met [Dr. Gregory] at a meeting, I do not remember him and so could not call him a 'close personal friend.' I might add that I have checked my file and I am unable to find any correspondence with Dr. Gregory."

After some remarks about the nature of the mammary mouse agent, Dr. Bittner made the following comments: "If the agent acted like a typical cancer virus, we would be unable to explain many of our data, but if the agent was comparable in action to an enzyme, the interpretation of the results would be possible. With the possible exception of leukemia, there is no evidence that there may be an agent involved in the development of other types of cancer in mice. By using some immune sera produced in rabbits and guinea pigs, we have been able to produce passive immunity against the agent. *However, if the mice obtained the agent first, treatment with the serum did not alter the incidence or the course of the disease.*"

In the last sentence quoted from Dr. Bittner the italics are supplied to point up the fact that, even if Gregory's unsupported claim that cancer in mice and men is the same disease were true, here is reliable evidence from one of the world's authorities in the field that the one form of cancer in mice associated with a virus-like agent is not altered by the application of Gregory's own theories.

Nevertheless, the Commission wanted to give Dr. Gregory an opportunity to present his work to a qualified expert in the field. This step seemed desirable because of the uncertainty of attempts at interpretation of the bodies appearing in Gregory's electron micrographs which he claims to be viral bodies. Several workers of experience who have seen some of these photographic reproductions offered equivocal opinions, one medical microbiologist saying that he believed them to be cytoplasmic inclusion bodies. At the request of the Commission, Dr. Richard Baker of the University of Southern California, who has been associated in the development of new techniques in the use of the electron microscope, agreed to visit Dr. Gregory's laboratory and undertake a first-hand review of his work. The chairman of the Commission requested that such an arrangement be made and Dr. Gregory readily agreed. On two occasions Dr. Baker tried to make an appointment by telephone, and met with evasions and excuses.

10. *General Comments*

The Commission was originally reluctant to undertake a full-fledged investigation of Dr. Gregory's methods, for the cry of persecution invariably resounds when an individual advocate of the unconventional is investigated. Indeed, before there was any formal attempt to survey Dr. Gregory's activities, the claim of persecution was being made when attempts at securing further publicity in major newspapers met with failure. Eventually the number of complaints, formal and informal, and the Commission's realization of Dr. Gregory's attracting increasing numbers of patients from a wide area, made an investigation mandatory. The members of the Commission wish to emphasize that its officers approached this study, as in the case of previous proposed remedies, with the intent only of determining the truth to the best of their ability. It is a matter of regret that none of the agents so far studied have withstood critical survey. The Commission's experience in these surveys illustrates convincingly that the vagaries of cancer are such that the use of distilled water could in at least occasional patients be associated with a course of events which an inexperienced or biased observer might report as evidence of its therapeutic value.

11. *Conclusions of the Commission*

The treatment of cancer by John E. Gregory, M.D., is based on his claim that all human cancer is associated with the presence of a single virus, a pos-

sibility that no other scientist or institution has been able to establish. Assuming thus that human cancer is an infectious process, and identical with a few forms of animal cancer known to be of viral origin, Dr. Gregory claims to have developed a vaccine and more recently to have discovered an antibiotic (Gregomycin), effective in the treatment of human cancer.

The evidence accumulated by the Commission lends no support to these claims, either as to the role of a viral agent in the production of human cancer, or as to any established value for Dr. Gregory's methods of treatment. In January 1953, Dr. Gregory informed representatives of the Commission that he had treated about 100 cases of cancer and that "20 per cent have cleared up." Several months later the Commission had found a total of 82 death certificates from three cities, signed by Dr. Gregory or his assistants, on which the cause of death was stated as cancer. With one possible exception, probably due to natural remission, members of the Cancer Commission could find no objective clinical or pathologic evidence of real control of cancer by the Gregory method of treatment alone. In common with other non-curative agents, notable subjective improvement is apparent in some patients.

Laboratory tests by qualified consultants indicate that "Gregomycin" has no antibiotic or antiviral activity, and that it fails completely to control certain animal neoplasms and types of leukemia which respond readily to chemotherapeutic agents of some established value.

Council Meeting Minutes

Tentative Draft: Minutes of the 404th Meeting of the Council of the California Medical Association, Los Angeles, January 30, 1954.

The meeting was called to order by Chairman Shipman in the Foy and St. Louis Rooms of the Hotel Statler, Los Angeles, at 9:30 a.m., Saturday, January 30, 1954.

Roll Call:

Present were President Green, President-elect Morrison, Speaker Charnock, Vice-Speaker Bailey, Secretary Daniels, Editor Wilbur and Councilors West, Wheeler, Loos, Sampson, Pearman, Ray, Shipman, Lum, Bostick, Teall, Varden, Heron, Frees, Carey, Kirchner, and Reynolds.

Absent because of illness, Councilor Dau.

A quorum present and acting.

Present by invitation were Messrs. Hunton, Thomas, Gillette, Clancy and Pettis of C.M.A. staff; legal counsel Hassard; Ben H. Read of the Public Health League of California; Rollen Waterson, executive secretary of the Alameda-Contra Costa Medical Association; Dr. Wilton L. Halverson, state director of public health; Dr. Samuel R. Sherman, president of the San Francisco Medical Society; Dr. James C. Doyle of Los Angeles; Mr. Louis L. Welsh of legal counsel; and Messrs. Arthur J. Manley and Fred O. Field, attorneys.

1. *Minutes:*

(a) On motion duly made and seconded, minutes of the 403rd meeting of the Council, held December 11-13, 1953, were approved.

(b) On motion duly made and seconded, minutes of the 238th meeting of the Executive Committee, held December 11-13, 1953, were approved.

(c) On motion duly made and seconded, minutes of the 239th meeting of the Executive Committee, held December 23, 1953, were approved.

(d) On motion duly made and seconded, minutes of the 240th meeting of the Executive Committee, held January 13, 1954, were approved.

2. *Membership:*

(a) A report of membership as of January 27, 1954, was received and ordered filed.

(b) On motion duly made and seconded, 25 members whose 1953 dues had been received since the previous Council meeting were voted reinstatement.

(c) On motion duly made and seconded in each instance, seven applicants were voted Retired Membership. These were: Edwin S. Bennett, Raymond J. Cary, Arthur D. Cooley, Walter R. Crane, Benjamin H. Hager, Los Angeles County; Floyd W. Gardner, San Bernardino County, and John Homer Woolsey, Yolo County.

(d) On motion duly made and seconded in each instance, eleven applicants were voted Associate Membership. These were: Ivan F. Edmister, Edward T. Knowles, John R. Skahne, Alameda-Contra Costa; C. G. Holland, Jr., Meredith A. Van Pelt, Kean F. Westphal, Fresno County; Frank E. Kliman, Wil-

liam S. Murry, Dean S. Pocock, Los Angeles County; Robert J. Bain, George A. Butler, Orange County.

(e) On motion duly made and seconded in each instance, reductions of dues were granted nine applicants because of illness or postgraduate study.

3. *Financial:*

A report of bank balances of January 27, 1954 was received and ordered filed.

4. *State Department of Public Health:*

Dr. Wilton L. Halverson, state director of public health, discussed the possible testing of the new poliomyelitis vaccine, under which second-grade school children would be given three injections and first- and third-grade children used as controls. A physician has been named to supervise such testing in selected areas in several states; until such sample testing has been done, the California department has been unwilling, with the knowledge and consent of its Advisory Committee, to undertake mass injections in California.

In response to a question, Dr. Halverson stated that no conclusive evidence is yet available on the effectiveness of community inoculations with gamma globulin.

5. *California Medicine:*

Mr. Hunton placed before the Council the question raised by the Committee on Advertising of CALIFORNIA MEDICINE as to whether or not cigarette advertising should be accepted by the journal. On motion duly made and seconded, it was voted to take this matter under advisement.

6. *Committee on Scientific Work:*

Dr. Daniels, chairman of the Committee on Scientific Work, presented a list of guest speakers proposed for the 1954 Annual Session who are not members of the Association. On motion duly made and seconded, these speakers were approved for inclusion in the program.

7. *Legal Department:*

(a) Mr. Hassard reported that Audio-Digest Foundation is now being formed and that $10,000 of the maximum $20,000 loan approved by the Council had been advanced. An exemption from state corporation and franchise taxes has been granted as an educational organization. On motion duly made and seconded, it was voted that any surplus earnings of Audio-Digest be devoted to medical education.

(b) Mr. Hassard reported that the Alameda-Contra Costa Medical Association had won the court case under which a member who had been expelled had petitioned the court to set aside the medical society judgment, reinstate him as a member and assess damages against the society. The expelled member has the right to appeal the decision against him to the District Court of Appeals.

(c) Mr. Hassard reported that oral arguments had been heard by the State Supreme Court in the case originally brought against the San Diego County Medical Society by Complete Service Bureau. The court's opinion is expected within the next few months.

(d) In a disciplinary hearing scheduled by a small county medical society, Mr. Hassard sought the Council's opinion as to whether or not a county society lay executive secretary might be named as a referee. It was the Council's opinion that this should not be done.

(e) Nominations for trustees of California Physicians' Service, due to be made by the Council 30 days before the Annual Session, were discussed and the Councilors asked to be prepared to submit names prior to the next Council meeting. It was agreed that the chairman should discuss with a previous trustee his willingness to serve a new term on the board of trustees.

8. *Public Policy and Legislation:*

Dr. James C. Doyle, member of the Committee on Public Policy and Legislation, reported on a national legislative meeting held in San Francisco on January 23, members present from California, Oregon, Washington, Idaho and Nevada. A general review of national legislation was held.

Mr. Ben H. Read, executive secretary of the Public Health League of California, reported that the state Senate Interim Committee on Licensing of Professions would meet in Sacramento starting March 1 and that the Association would be represented.

On motion duly made and seconded, it was voted to table action on a proposal for subsidizing student public health officers and other personnel.

9. *Public Relations:*

Mr. Ed Clancy reported on several television programs undertaken by county medical societies and urged that such programs be maintained on a public service basis and not permitted to come under commercial sponsorship.

10. *Memorial to George H. Kress, M.D.:*

On motion duly made and seconded, it was voted to rise in the memory of Dr. George H. Kress, former president, secretary and editor of the Association, and that a suitable resolution be prepared and sent to Mrs. Kress.

11. *Appreciation to Edward J. McCormick, M.D.:*

On motion duly made and seconded, it was voted to express to Dr. Edward J. McCormick of Toledo, Ohio, the appreciation of the Association for his fine

contribution to the public relations of medicine during the course of five speaking engagements in California.

12. *Medical Secretaries:*

Dr. Frees presented a proposal for the formation of a national organization of medical secretaries. It was agreed to forward this proposal to the Committee on Associated Societies and Technical Groups for consideration and report.

13. *Medical Society of the State of California:*

Mr. Hassard reported that some of the trustees of the Medical Society of the State of California had suggested that that organization become inactive. On motion duly made and seconded, it was voted to authorize the Executive Committee to meet with the trustees of MSSC to discuss this matter and to preserve the name of the organization.

14. *Benevolence Committee:*

On motion duly made and seconded, it was voted to request the Benevolence Committee to investigate the financial needs of Mrs. George H. Kress.

Adjournment:

There being no further business to come before it, the meeting was adjourned at 5:10 p.m.

Executive Committee Minutes

Tentative Draft: Minutes of the 241st Meeting of the Executive Committee, Los Angeles, January 30, 1954.

The meeting was called to order by Chairman Lum in the Foy and St. Louis Rooms of the Hotel Statler, Los Angeles, on Saturday, January 30, 1954, at 5:15 p.m.

Roll Call:

Present were President Green, President-elect Morrison, Speaker Charnock, Council Chairman Shipman, Auditing Committee Chairman Lum, Secretary Daniels and Editor Wilbur.

A quorum present and acting.

Present by invitation were Messrs. Hunton, Pettis and Gillette of C.M.A. staff, legal counsel Hassard and Dr. Edward C. Rosenow.

1. *Women's Organizations:*

Dr. Morrison reported that he had been invited to meet with the leaders of women's organizations in Ventura County to discuss the overall questions of medical care for the people. On motion duly made and seconded, it was voted to authorize the president to participate in such a meeting and to report back to the Council on its outcome.

2. *Audio-Digest Foundation:*

Dr. Rosenow reported on the start of Audio-Digest Foundation and stated that he proposed to ask Mr. K. L. Hamman, executive vice-president of California Physicians' Service, to review the business setup of the organization.

Adjournment:

There being no further business to come before it, the meeting was adjourned at 5:40 p.m.

* * *

242nd Meeting

Tentative Draft: Minutes of the Executive Committee, San Francisco, February 24, 1954.

The meeting was called to order by Chairman Lum in Room 214 of the Sir Francis Drake Hotel, San Francisco, at 5:45 p.m., Wednesday, February 24, 1954.

Roll Call:

Present were President Green, President-elect Morrison, Council Chairman Shipman and Auditing Committee Chairman Lum. Absent for cause, Speaker Charnock. Ex-officio members absent for cause, Editor Wilbur and Secretary Daniels.

A quorum present and acting.

Present by invitation were Messrs. Hunton, Clancy and Thomas of C.M.A. staff and legal counsel Hassard.

1. *Public Relations:*

Mr. Clancy made a report on the activities of the public relations department to date and discussion was held on proposed means of maintaining the principle of freedom of choice of physicians. On motion duly made and seconded, it was voted to retain Rollen Waterson Associates as health insurance consultants, to develop a program to meet the needs of the Association in maintaining freedom of choice of physicians.

2. *Secretarial Conference:*

On motion duly made and seconded, it was voted to invite to the 1954 Secretarial Conference the presidents of the component societies.

3. *State Department of Public Health:*

On motion duly made and seconded, it was voted to recommend to the Governor the appointment of Dr. Malcolm Merrill as State Director of Public Health.

4. *Health Insurance Conference:*

On motion duly made and seconded, it was voted to have Mr. Rollen Waterson of Rollen Waterson Associates represent the Association at a health in-

surance conference scheduled by the San Francisco Labor Council.

5. *Meeting with Women's Organizations:*

Dr. Morrison reported on a meeting held with representatives of women's organizations in Ventura County, during which he was called upon to answer numerous inquiries relative to the availability, cost and other features of health insurance. Further meetings are planned.

Adjournment:

There being no further business to come before it, the meeting was adjourned at 9:30 p.m.

Medical Dates Bulletin

THIS BULLETIN of the dates of postgraduate education assemblies and the meetings of various medical organizations in California is supplied by the Committee on Postgraduate Activities of the California Medical Association.

APRIL

California Medical Association Institute for Sacramento Valley Counties, Sacramento, April 15-16.

Alumni Committee, Children's Hospital, one-day seminar, San Francisco, April 24.

California Medical Association Institute for Southern Counties, Palm Springs, April 22-23.

American Academy of Nutrition, Pasadena, April 30-May 1.

MAY

California Medical Association Convention, Los Angeles, May 9-13.

Clifford Sweet Lectureship, Children's Hospital of the East Bay, Oakland, May 26-28.

JUNE

American Medical Association, Annual Session, 1954, San Francisco, June 21-25.

American Geriatrics Society, San Francisco, June 17-19.

OCTOBER

California Society of Internal Medicine, Yosemite National Park, October 2.

Los Angeles County Heart Association, Annual Professional Symposium on Heart Disease, October 13-14.

California Academy of General Practice, Sixth Annual Scientific Assembly, Los Angeles, October 24, 25, 26, 27.

C.M.A. REGIONAL AND MEDICAL INSTITUTES

SACRAMENTO VALLEY COUNTIES, Sacramento, April 15-16.
SOUTHERN COUNTIES, Palm Springs, April 22-23.

AMERICAN MEDICAL ASSOCIATION

Annual Session, 1954, San Francisco, June 21-25.
Clinical Session, 1954, Miami, November 30-December 3.
Annual Session, 1955, Atlantic City, June 6-10.
Clinical Session, 1955, Boston, November 29-December 2.

In Memoriam

ABBOTT, FRED E. Died in Santa Ana, September 24, 1953, aged 70, of coronary occlusion and arteriosclerosis. Graduate of Rush Medical College, Chicago, Illinois, 1908. Licensed in California in 1923. Doctor Abbott was a member of the San Diego County Medical Society.

✤

BARNHART, WILLIAM. Died in Los Angeles, February 22, 1954, aged 78. Graduate of the University of Southern California School of Medicine, Los Angeles, 1906. Licensed in California in 1906. Doctor Barnhart was a retired member of the Los Angeles County Medical Association.

✤

BARTLETT, EDWIN I. Died in Millbrae, February 2, 1954, aged 70, of coronary artery disease. Graduate of the Johns Hopkins University School of Medicine, Baltimore, Maryland, 1912. Licensed in California in 1917. Doctor Bartlett was a retired member of the San Francisco Medical Society.

✤

BUCKELL, ALFRED E. T. Died in Oakland, January 23, 1954, aged 75, of acute myocardial infarction. Graduate of the University of Oregon Medical School, Portland, 1906. Licensed in California in 1917. Doctor Buckell was a member of the Alameda-Contra Costa Medical Association.

✤

GARDNER, FRANK M. Died in San Bernardino, February 15, 1954, aged 76, of acute myelogenous leukemia. Graduate of the New York Medical College, New York, 1904. Licensed in California in 1912. Doctor Gardner was a member of the San Bernardino County Medical Society.

✤

KOENECKE, HENRY J. Died in Salinas, January 23, 1954, aged 63, of coronary artery disease. Graduate of the College of Physicians and Surgeons of San Francisco, 1919. Licensed in California in 1919. Doctor Koenecke was a member of the Monterey County Medical Society.

✤

LESSER, ROBERT P. Died in San Francisco, January 16, 1954, aged 62, of coronary occlusion. Graduate of Friedrich-Wilhelms-Universität Medizinsiche Fakultät, Berlin, Prussia, Germany, 1918. Licensed in California in 1937. Doctor Lesser was a member of the Alameda-Contra Costa Medical Association.

✤

MARCHILDON, JOHN W. Died January 29, 1954, aged 78. Graduate of Rush Medical College, Chicago, Illinois, 1903. Licensed in California in 1925. Doctor Marchildon was a retired member of the Los Angeles County Medical Association.

✤

MCGREW, WILLIAM R. Died in Oakland, January 22, 1954, aged 79. Graduate of Keokuk Medical College, Iowa, 1903. Licensed in California in 1932. Doctor McGrew was a retired member of the Alameda-Contra Costa Medical Association.

✤

MOQUIN, WILLIAM N. Died in San Diego, December 12, 1953, aged 39. Graduate of the University of Southern California School of Medicine, Los Angeles, 1952. Licensed in California in 1952. Doctor Moquin was an affiliate member of the Ventura County Medical Society.

✤

SQUIBB, JOSEPH W. Died January 4, 1954, aged 49. Graduate of Washington University School of Medicine, St. Louis, Missouri, 1931. Licensed in California in 1936. Doctor Squibb was a member of the Los Angeles County Medical Association.

NEWS & NOTES

NATIONAL • STATE • COUNTY

LOS ANGELES

Dr. George Uhl, health officer for the City of Los Angeles, has been appointed by Governor Goodwin Knight to California's new Building and Standards Commission. The purpose of the new commission is to study various building codes with a view to eliminating conflicting and redundant sections.

* * *

Tentative Program of the meeting of the **American College of Chest Physicians,** California Chapter, to be held in Los Angeles, May 8, is as follows:

Business Meeting, 12:30-1:30 p.m.,

Scientific Program, 1:30-4:30 p.m., as follows:

The Medical Surgical Team in the Treatment of Mitral Stenosis, Joseph F. Sadusk, Jr., M.D., by invitation. Discussion by David Dugan, M.D.

Personality and Tuberculosis, Barbara M. Stewart, Ph.D., and Shalom E. Vineberg, Ph.D., by invitation.

Minifilm Utilization After a Chest Survey, Blanche Perkins, by invitation, and Emil Bogen, M.D.

Management of Diaphragmatic Hernia in the Aged, Byron H. Evans, M.D., by invitation, and Joseph B. Ford, Jr., M.D., by invitation.

Diagnostic Use of Pneumoperitoneum in Non-Tuberculous Diseases, Harold G. Trimble, M.D., and William B. Leftwich, M.D., by invitation.

Bronchial Diseases in Childhood Tuberculosis, Henry J. Rubin, M.D., by invitation, and Marvin S. Harris, M.D.

* * *

Dr. Robert A. Ulstrom, assistant professor of pediatrics at the University of California at Los Angeles Medical School, has been awarded a $30,000 scholarship for medical research by the John and Mary R. Markle Foundation of New York. He is one of 25 faculty members of medical schools in the United States and Canada so honored by the philanthropic foundation. The grant will be awarded in the sum of $6,000 annually during a five-year period. Dr. Ulstrom's research will be concerned primarily with metabolism and the function of endocrine glands in children.

* * *

Dr. Lawrence A. Williams of Pasadena has been elected a member of the board of trustees of the California Institute of Technology, according to recent announcement by L. A. DuBridge, president of the Institute.

MARIN

The regular monthly meeting of the **Marin County Medical Society** was held on February 25th at the Meadow Club, Fairfax. Dr. Leo L. Stanley, president, called the meeting to order at 8 p.m. The subject was: "Meet Your C.M.A. Officers." Present by invitation were: **Dr. Arlo A. Morrison,** C.M.A. president-elect, Mr. John Hunton, C.M.A. executive secretary, and Mr. Ben H. Read of the Public Health League of California. In the absence of Dr. C. A. Russell, program chairman, speakers of the evening were introduced by Dr. Warren L. Bostick, Councilor for the tenth district.

SAN BERNARDINO

Dr. T. Robert White of Redlands has accepted an invitation of the Swiss Organizing Committee for the International Congress on Gynecology and Obstetrics to read a paper before the Congress, which is to be held in Geneva, Switzerland, July 26-31, 1954. Dr. White's subject will be "Practical Experience with the Papanicolau-Traut Vaginal Smear."

SAN FRANCISCO

The **American Cancer Society's award** for distinguished service in cancer control was presented last month to **Dr. L. Henry Garland,** of San Francisco, who is secretary of the Cancer Commission of the California Medical Association.

Presentation ceremonies were carried out at a dinner attended by the Society's board of directors, who were holding a meeting in San Francisco.

* * *

Alumni of the University of Pennsylvania Medical School will meet for dinner at the Sir Francis Drake Hotel, San Francisco, at 7 o'clock Wednesday, June 23, the third day of the meeting of the American Medical Association. Dr. John K. Mitchell, dean of the medical school, will be the speaker of the evening.

Tickets for the dinner may be purchased at the registration desk of the A.M.A. convention.

* * *

Alumni of Tufts Medical College will hold their convention dinner at John's Famous Grill, 63 Ellis Street, San Francisco, on Wednesday, June 23, the third day of the meeting of the American Medical Association. Dinner will be at 8 p.m. and the charge will be $6.00 per person, according to Dr. John F. Martin, president of the Tufts Alumni Association of California.

Alumni are requested to apply for reservations early, and to send a check with the request. Requests should be sent to Dr. M. Coleman Harris, chairman of the dinner committee, 450 Sutter Street, San Francisco.

* * *

The **38th annual tournament of the American Medical Golf Association** will be held at the Olympic Country Club, San Francisco, Monday, June 21, 1954. Prizes for winners—there were 311 competitors and 311 winners at the 1950 tournament in San Francisco—will be awarded at a dinner at the Olympic Club.

Dr. Paul Wyne, tournament chairman, has expressed hope that a large number of California physicians will participate in the tournament and help entertain out-of-state entrants. Any member of the A.M.A. may compete and no advance registration is required.

SANTA CLARA

Dr. Hyman Tucker has been appointed superintendent and medical director of Agnew State Hospital. The appointment was made by Dr. Walter Rapaport who himself occupied that post until he was recently named state director of mental hygiene by Governor Goodwin Knight.

Dr. Tucker has been serving as assistant superintendent and medical director of Metropolitan State Hospital at Norwalk.

GENERAL

A statewide **morbidity survey** to study the extent of illness in the population of California will be conducted by the State Department of Public Health beginning May 3. The survey, using methods developed in a pilot study conducted by the department in San Jose during the past two years, will continue for a year under the supervision of Dr. Lester Breslow, chief of the department's Bureau of Chronic Diseases. Trained interviewers selected by the U.S. Census Bureau will reach 35,000 people in approximately 12,000 households throughout the state.

The survey will cover all types of diseases and injuries and will determine not only the nature and amount of illness among Californians, but also how much time is lost from work because of it, and the extent to which medical attention and hospitalization are secured. It is anticipated the survey will answer questions such as: What are the major and minor causes of sickness today? How many invalids are there? Does health actually fail rapidly after age 65?

* * *

Wayland D. Hand, professor of German and folklore at the University of California at Los Angeles, who received a Guggenheim Foundation fellowship to compile a dictionary of American superstitions, has appealed to the medical profession for information on **folk medicine and related lore.** A postcard addressed to him at UCLA, Los Angeles 24, will bring free of charge a prospectus telling of the project and examples of the kind of material wanted.

* * *

At the American Medical Association's ninth **National Conference on Rural Health,** held in Dallas, March 4-6, Dr. Henry Randel, Fresno, chairman of the California Medical Association's Committee on Rural Health, discussed "The Physician's Responsibility to His Community" at the opening session. Dr. Randel stressed the need for greater participation by physicians in local affairs "if we are to merit the community's interest in our particular problems." Also from California were: Dr. J. Frank Doughty, Tracy, a member of the Council on Rural Health and regional director for California, Arizona and Nevada; Dr. Carroll B. Andrews, Sonoma; Mr. Glenn W. Gillette of the C.M.A. public relations department; and Mrs. Charlotte E. Nye, Napa, rural health department, California Farm Bureau Federation.

POSTGRADUATE EDUCATION NOTICES

UNIVERSITY OF CALIFORNIA AT LOS ANGELES

Three-Day Symposia: Office Otolaryngology—April 29; Office Urology—April 30; Office Proctology—May 1.

Anesthesia—May 13-14.

Techniques of Hypnosis—May 18-19.

Electrocardiography—June 2-18.

Laboratory Technicians Symposium—June 19-20.

Contact: Mrs. Margaret H. Griffith, Assistant Head of Postgraduate Instruction, Medical Extension, University of California, Los Angeles 24, California.

UNIVERSITY OF CALIFORNIA, SAN FRANCISCO

Course in Internal Medicine, American College of Physicians

Date: June 14 through 18, all day, University of California Extension Building, 540 Powell Street, San Francisco.

Conference on General Surgery

Date: September 13 through 17, all day, at Medical Center. This conference will be offered for the purpose of stressing the newer concepts, methods of diagnosis, treatment and techniques in surgery. Throughout the session emphasis will be placed on the diagnosis and treatment of malignant lesions. Instruction will consist of didactic periods, panel discussions, and actual operative demonstrations which will be televised from the operating room to the lecture hall. This program will be designed for general practitioners who are doing surgery. The class will be limited.

Conference on Fractures and Diseases of the Bone

Date: September 20 through 23, all day, San Francisco County Hospital. The program will cover the newer concepts, methods of diagnosis, treatment and techniques. There will be didactic lectures, panel discussions, and actual demonstrations of illustrative cases. The class will be limited.

Medicine for General Practitioners

Date: September 21 to December 7, Tuesday evenings, East Oakland Hospital, Oakland. This is a continuation course which is offered every year, with complete change of program and speakers. Class limited.

Evening Lectures in Medicine, Part 1 and Part 2

Date: September 16 through December 9, Thursday evenings, Mills Memorial Hospital, San Mateo. This is also a continuation course which will be of interest to both internists (Part 1) and to physicians in general practice (Part 2).

Symposium on Endocrine Diseases and Geriatrics

Date: October 22, 23, 24 (week-end), University of California Extension Building, 540 Powell Street, San Francisco. A review of recent developments in both fields, with suggestions for the management of patients past the age of fifty.

Microscopy (Part 1)

Date: January 14 through March 18, Thursday evenings, Medical Center.

Photomicrography (Part 2)

Date: April 1 through June 3, Thursday evenings, Medical Center. Part 2, Photomicrography, in monochrome and in color, cannot be taken without Part 1, but Part 1, Microscopy, which includes the critical use of the microscope, may be taken alone. These courses are open to any persons who are interested in the study of the topics listed above. Class limited.

Contact: Stacy R. Mettier, M.D., Head of Postgraduate Instruction, Medical Extension, University of California Medical Center, San Francisco 22, California.

C.M.A. REGIONAL MEDICAL AND SURGICAL INSTITUTES

Southern Counties, Palm Springs, April 22-23, 1954.

Contact: C. A. Broaddus, M.D., Director, Postgraduate Activities, California Medical Association, 1036 N. Center Street, Stockton, California.

COLLEGE OF MEDICAL EVANGELISTS

Diseases and Injuries of Bones and Joints (4 weeks)
Full time.

Date: July 5 through 30, 1954. Dr. Taylor's office and various hospitals. Tuition: $100.00. G. Mosser Taylor, M.D., Alonzo J. Neufeld, M.D., and Associates. Unless otherwise stated or arranged, courses will be held in Osler House, corner State and Michigan Avenues.

Contact: Chairman, Section on Graduate and Postgraduate Medical Education, College of Medical Evangelists, 312 North Boyle Avenue, Los Angeles 33, California.

ORTHOPAEDIC HOSPITAL AND RANCHO LOS AMIGOS RESPIRATORY CENTER, LOS ANGELES

Care of the Poliomyelitis Patient—April 26-30. The course is designed to cover all phases of patient care and rehabilitation, including use of the respirator.

Contact: Polio Teaching Program, Orthopaedic Hospital, 2400 South Flower Street, Los Angeles 7.

STANFORD UNIVERSITY SCHOOL OF MEDICINE

Conference on Growth and Adaptation in Childhood

Date: June 12 to 19 inclusive, 1954.
For General Practitioners, Pediatricians and Public Health Physicians, to be presented by the Pediatric Department, the Pediatric-Psychiatric Unit, the Division of Neuropsychiatry.

Contact: Office of the Dean, Stanford University School of Medicine, 2398 Sacramento Street, San Francisco 15.

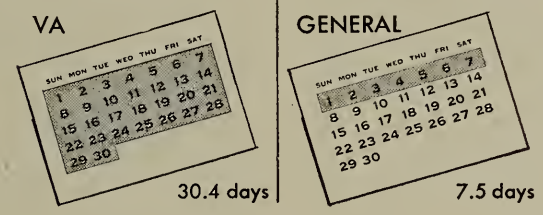
SEMINARS OF THE ALUMNI COMMITTEE OF THE CHILDREN'S HOSPITAL, SAN FRANCISCO

April 24, 1954—Childhood Ecology, with a discussion of physical, mental and emotional growth and development of the young child; the effects of deprivation of maternal care, and the impact of environment on the child.

A fee of $15.00 will be charged for attendance at all the seminars and those who wish to have further details or be on the mailing list for such details may write to: H. E. Thelander, M.D., Children's Hospital, 3700 California Street, San Francisco.

In Viewing the VA Medical Program . . .

comparison of length of stay in VA and general hospitals
GM&S



General medical and surgical patients in VA hospitals are confined four times longer than in non-federal hospitals. VA hospitals admit patients for examination, diagnosis, and treatment, much of which is normally undertaken outside civilian hospitals. Also, VA patients often remain hospitalized throughout the entire medical treatment period, whereas non-VA patients are usually treated at home during their convalescence. This is a major factor in the tremendous cost of the VA medical program.

INFORMATION

The Present Shortage of Interns

The Responsibility of the Medical Profession to Educational Standards

FRANCIS SCOTT SMYTH, M.D., San Francisco
Dean, University of California School of Medicine, San Francisco

THE PRACTICE OF MEDICINE in the last three decades has placed considerable importance upon hospitals, their facilities and personnel. Increasingly, the hospital, its superintendent and the professional staff have come to depend on interns and residents for smooth functioning in the many aspects of care of patients.

At present the demand for interns greatly exceeds the supply of graduates of the American schools of medicine, and is part of the overall shortage of American physicians. This shortage relates, first, to the population increase of the country; second, to the demands of the military forces in their remobilization; and third, to the increasing demand for medical personnel in legislated expansion of programs related to health (for example, the Veterans Administration).

Further to complicate the situation, many foreign schools of medicine are producing more physicians than are locally needed, and their graduates are, in a sense, for export. As a result, many hospitals have sought and are obtaining graduates of foreign medical schools to fill vacant internships. Many of the graduates are American students, often rejectees from American schools of medicine who have obtained easy admittance to foreign schools at low cost and/or under subsidy by "G.I. bill" or other funds.

A second group are foreign students selected by their country for experience and education in the United States. As a world center for medical education and in the interest of international understanding, we cannot shirk the responsibility for supplying schooling in such circumstances. But whether subsidized by private foundations, by the Institute of International Education, by the U. S. Public Health Service or other sources, the premise and purpose of education and training of this type is mutual aid and exchange, but not immigration. Failing this purpose by carelessness in responsibility, the program might be jeopardized and could well alienate international understanding rather than foster it.

Not to be confused with the second group are an uncertain number of foreign graduates who seek by their own means or any other resource to emigrate to this country. In this group are the many displaced physicians.

Experience with many, if not most, of foreign medical school graduates as interns, is disappointing in comparison with experience with those graduating from American schools. Many of the foreign graduates (whether on visitor's visa or not) try to stay here and become licensed in the United States; hence, unless carefully supervised, the present use of graduates of foreign schools poses a grave threat to our professional standards and educational institutions.

The writer has no argument against carefully selected graduates of foreign schools who meet our standards. He is concerned with the indiscriminate importation of foreign graduates, which can defeat the purposes of educational exchange or undermine our own standards.

One proposal has been to accredit certain foreign schools by the same methods of inspection and by the same standards as those used for American schools. It is the writer's opinion that such a program, if strictly followed, would accredit very few schools, would entail greater effort and time, and would create considerable misunderstanding with our foreign colleagues. In a sense it is presumptuous to undertake to dictate to a foreign country the kind of medical education it should have, when it has developed this education to meet its own needs.

In many instances, hospitals have been given the right to issue their own permits for visas (Project Nos. P12 to P1644). This permit implies responsibility in seeing that the visitors return to their own country. Too often, however, the hospital is unable or unwilling to follow through with the implied responsibility. Frequently a visitor connives to avoid his return and finds ways to perpetuate his stay. The hospital and its staff, if not abetting such dereliction, assume an indifferent attitude or ignorance of the fate of these importations for which they assumed responsibility.

To recapitulate or summarize:

With a scarcity of candidates to fill available internships, graduates of foreign medical schools are being sought by many hospitals. These graduates may be grouped into four categories:

1. Americans who, failing to obtain admittance to schools in this country, have been admitted to foreign schools where costs and curriculum are often lower than those in American schools. This group, unquestionably, exerts considerable political pressure, and intends to become licensed in this country. If the tendency is not checked, the standards of our

own schools are threatened by competition with those of lower standing.

2. Bona fide selected foreign graduates, who are selected by their government for training in this country. They must not be neglected or exploited, but should be considered ambassadors whose obligation is to return, not to emigrate.

3. Foreign graduates, particularly from countries educating more physicians than they need, who are seeking to emigrate to more favorable economic areas.

4. Displaced persons and physician immigrants, few of whom will qualify for licensure. Some may be salvaged by postgraduate or special educational "make-up" experience.

It is not the purpose of this report to discuss the means by which the graduates of foreign schools, who plan or wish to immigrate, may be accommodated without a threat to our standards. Some selective differentiation may be possible by postgraduate education, the use of the National Board examination, or individualized selection for hospital positions. At present, the most acute need is to prevent the undermining of our own high standards in both medical education and the quality of internships in our numerous hospitals. In this, hospital superintendents and professional staff alike share responsibility.

Report of the Joint Committee On Chest X-Ray*

Reprinted from "Diseases of the Chest," Official Journal of the American College of Chest Physicians

Purpose of Joint Committee on Diseases of the Chest

In establishing a Joint Committee on Diseases of the Chest, the purpose of the American College of Chest Physicians and the American College of Radiology is to exchange ideas and to propose guiding principles on the problems involved in routine chest x-rays in hospitals (general, mental, etc.), and mass chest x-ray programs. The Committee agrees: that each physician should be encouraged to have a chest x-ray of all of his patients; that every patient admitted to a hospital, private or public, should have a routine chest x-ray; and that the follow-up for all suspected lesions seen in chest x-ray surveys should be organized very carefully to assure that the patient comes under medical supervision.

*Approved by Joint Committee on Chest X-ray; American College of Radiology, American College of Chest Physicians, Feb. 4, 1953.

Limits of Survey

Routine chest x-ray examinations should be defined as those examinations of the chest which are conducted to screen persons with abnormal changes of the chest from persons with normal chests. The examinations are screening diagnostic procedures and are not to be considered as clinical diagnostic examinations. The screening method is for the purpose of detecting the presence or absence of a lesion only.

The size of the film which one uses for screening purposes is not of primary importance. The committee believes in principle, however, that when microfilms have been used, a 14x17 inch film is a necessary second step in the screening procedure and the mechanism whereby such is provided in any community shall be determined by the local medical society or the local hospital staff. Survey chest x-rays either in hospitals or in the general population are approved as a screening device if conducted by agencies which utilize well qualified perfessional and technical personnel and which make sincere efforts to send the positive individuals to qualified local physicians or clinics for proper follow-up.

Interpretation and Report

Interpretation and reporting of medical findings is a medical matter and should bear the signature or identification of the responsible physician.

Method of Reporting

Method of reporting of chest survey studies: This is a local matter and is by prearranged agreement between the employer and the employee in industrial surveys; in other surveys it is in accord with medical ethics, according to local agreement.

Type of Reporting

Type of reporting: The Committee discourages the reporting of suspicious cases as tuberculosis. It believes this to be a clinical diagnosis. The x-ray interpreter should designate the cases that require immediate follow-up as "urgent." The small film x-ray interpretation is merely an impression.

It should be emphasized that the 14x17 inch film is a diagnostic aid and the results derived therefrom are also impressions and not diagnoses. Even the larger film is but one of several examinations necessary in order to establish correct diagnoses.

Double Reading

The Committee notes the several publications indicating the extent of false negative and false positive reports resulting from inter- and intra-individual variations in interpretations of chest films. From these it is evident that failures to detect tuberculosis can be reduced by multiple readings,

but at the expense of increasing the false positives, unless a check mechanism is employed. The simplest elaboration of multiple reading is the independent interpretation of the film by two physicians with referee conference of the two undertaken in those cases in which they disagree. Only those cases on which both agree in conference should be followed.

While such a procedure may result in the detection of a slightly larger portion of all the abnormal cases, it may not be feasible from an economic or personnel standpoint. Groups responsible for survey operations are urged by the Committee to give consideration to double reading as one of the methods by which survey yields may be increased. Availability of financial resources and qualified professional personnel, as well as the need for other services of relative importance, will be determinates in this decision. The Committee, therefore, calls attention to some of the virtues of double reading but does not recommend it unreservedly.

Professional Compensation

The professional cost of performing routine chest examinations in hospitals: The Joint Committee believes the radiologist and/or chest physician should be compensated just as any other physicians practicing his profession. The procedure is time consuming and places a definite responsibility on the radiologist or chest physician. The Committee likewise felt that in this matter the basic principle of payment is by arrangement between the physician and the hospital or agency involved. In the reading of follow-up films there should also be an individual limit to the number of films which should be read in any one day by one physician and which he should not exceed. The compensation, of course, would have to take into consideration, whether the physician makes the film in addition to interpreting it.

Clothing of Patients

Whether or not a screening examination can be conducted with the patient fully clothed: Since the number of lesions overlooked because of clothing (2 per cent) is considerably smaller than the normal variations of interpretation that Chamberlin et al. have demonstrated to exist in the reading of photofluorographic films, it is concluded that the examination of clothed persons is as effective a procedure as examination of the undressed persons. Since examination of the fully clothed persons is an easier procedure as compared with the examination of the undressed persons, the Committee agreed that screening examination may be conducted with the patient fully clothed.

Reader's Qualifications

Qualifications of readers in mass chest surveys: It was believed at the present time there was no practical method which could be used to evaluate the qualifications of a particular reader. Studies in this respect are being made at the present time. It is hoped that within a short period of time satisfactory testing methods will be available. The committee therefore agreed to leave this matter open for further discussion.

Protection

The radiation received by all professional, technical and clerical personnel associated with photofluorographic equipment should be continuously monitored by means of film badges or other devices which have been proved to be satisfactory for determining the radiation exposure of personnel.

When an individual receives more than 100 milliroentgens per week, the medical officer in charge of the unit should immediately determine whether the individual has been careless or whether the protective devices of the equipment are at fault.

If the fault lies with the individual, the individual should be informed of the fact and strongly cautioned regarding the dangers of excessive radiation exposure. Failure to regard such warning should be considered as negligence on the part of the individual.

If the fault lies with the equipment or protective devices, the photofluorographic unit should immediately be taken out of commission until such time that measurements of radiation conditions where technical or clerical personnel are required to work will yield radiation exposures less than 100 milliroentgens per week for case loads of 2,500 exposures at 95 kv. and 40 ma. seconds (the average exposure per photofluorographic chest film).

Continuation of Study

It is recommended that the Joint Committee arrangement continue and that the Joint Committee meet annually, or at the call of the co-chairmen. In an effort to have the Joint Committee act continuously and without interruption, interim ideas should be sent to the co-chairmen, and an exchange of opinion should continue during the intervals between meetings. Recommendations are solicited from all interested in the affairs of the Joint Committee.

JOINT COMMITTEE ON CHEST X-RAY

American College of Radiology—Leo G. Rigler, Minneapolis, Minnesota, Chairman; Sydney J. Hawley, Seattle, Washington; Russell H. Morgan, Baltimore, Maryland; E. P. Pendergrass, Philadelphia, Pennsylvania; Paul C. Swenson, Philadelphia, Pennsylvania.

Chicago, Illinois, Chairman; Robert J. Anderson, Washington, D. C.; Hollis E. Johnson, Nashville, Tennessee; Ed-

American College of Chest Physicians—Otto L. Bettag, ward Kupka, Berkeley, California; James H. Stygall, Indianapolis, Indiana.

THE PHYSICIAN'S *Bookshelf*

MANAGING YOUR CORONARY. William A. Brams, M.D. J. B. Lippincott Company, Philadelphia, 1953. 158 pages, $2.95.

Philosophy has been defined as the attempt to explain phenomena. One of the greatest of the phenomena of the twentieth century is the avidity for medical and quasi-medical obiter dicta on the part of the public. The various special societies devoted to certain diseases (and the raising of funds for the full time staff) are educating the public almost ad nauseam. Indeed, many students of mankind would sooner have John Citizen worry about Mr. Thurber and his works, rather than about their own innards. Be that as it may, the spate of popular writings continues.

The present monograph consists essentially of eight chapters which cover the growing problem of coronary thrombosis, the doctor's diagnosis, the mechanics of cardiac action, the behavior of the heart under attack, and the process of healing. Finally there is a cheerful section on how science is helping you after the heart attack.

One page is enticingly headed "The Picture of Your Heart's Electrical Activity" and is accompanied by "Figure 1—The Typical Changes in the Electrocardiogram Following an Attack of Coronary Thrombosis." This reviewer is no cardiologist, but he is familiar with the vagaries in the interpretation of electrocardiograms, normal and otherwise, even by the most erudite. The wisdom of reproducing such tracings in a popular manual is to be debated.

On pages 36 and 37 there is a graphic description of a lady whose upside-down stomach had squeezed into the front of her chest and pushed her heart violently to one side. It is to be hoped that the writer will submit this phenomenal case to scientific documentation. We wonder who the consulting radiologist was during the dramatically described roentgen examination.

The final chapter culminates with seven segments of sound advice. If followed faithfully by all citizens, it is highly probable that most would rust away rather than wear out. We suspect that it is more entertaining to end our terrestrial existence in the latter manner. Even in a welfare state, living to 120 will be of dubious benefit, unless some bright genius invents a game more entertaining than the chase.

* * *

BASIC PROBLEMS IN PSYCHIATRY. Edited by Joseph Wortis, M.D., Jewish Hospital of Brooklyn. Grune & Stratton, New York, 1953. 186 pages, $4.50.

This book of 182 pages consists of an Introduction and Comments, and Conclusions, by Dr. Joseph Wortis, with six chapters by different authors. The Introduction is extremely well written and discusses some very basic material and raises interesting questions. The first chapter on "The Scope and Limitations of Psychiatry," by Dr. Benjamin Pasamanick, questions a number of our basic concepts and ways in which we are dealing with problems, and offers some interesting suggestions. He stresses the view emphasized by many sociologists, that juvenile delinquency and crime are usually not a product of psychological disorder, but rather a sign of social dislocation. From this, the conclusion is drawn that the psychiatric treatment of individual delinquents is in general not an adequate way of dealing with these problems. There is further emphasis on the idea that the psychiatrist is a Doctor of Medicine and that in some ways he has been getting away from this approach to psychiatry.

The succeeding chapters on "The Conditional Reflex," "Psychology and Culture," "The Validity of Mental Testing," "Schools of Psychiatry," and "The Psychosomatic Symptoms," are all well done.

Dr. Wortis' comments and conclusions are an excellent summary of the material as presented. This whole book is, in general, simply and clearly written, has much basic material that is of interest and deals with it in a controversial fashion. It will well repay reading it.

* * *

HOLT PEDIATRICS—12th Edition—L. Emmett Holt, Jr., Professor of Pediatrics, New York University College of Medicine, and Rustin McIntosh, Carpentier Professor of Pediatrics, Columbia University. Twelfth Edition of Holt's Diseases of Infancy and Childhood. Appleton-Century-Crofts, Inc., New York, 1953. 1485 pages, $15.00.

This twelfth edition of a famous and authoritative text appears under a new title, after an interval of 13 years from the last revision, and has been urgently needed for at least eight years. From the time of the first edition written by the senior author's father in 1896 and through its later revisions at the hands of John Howland, Edwards Park and the present authors, until perhaps the middle 1940s, it remained the outstanding one-volume pediatric text in English in terms of completeness, authority and practical usefulness to both medical students and practicing pediatricians. As a result of the extremely rapid and extensive expansion of knowledge in the field, it had become obsolescent and its place taken by other texts, notably Mitchell-Nelson.

It is gratifying to find the present revision again up-to-date, thorough, authoritative and practically useful. Reflecting the expansion and specialization within pediatrics, individual sections have been prepared by no fewer than 72 contributors in addition to the senior authors. In some instances sections have been written by authorities in non-pediatric fields; among these may be mentioned George W. Thorn, professor of medicine at Harvard, whose chapter on the adrenal gland is outstanding; Frank B. Walsh, associate professor of ophthalmology at Hopkins, who wrote much of the chapter on the eye; and Gilbert F. Otto, also of Hopkins, who prepared the section on parasitology. Frank R. Ford's section on neurology also deserves special mention.

No detailed review of so large a text is possible in short space. Descriptions of the astonishingly multifarious phases

of modern pediatrics are brought up to date: growth and development, acid-base equilibrium and electrolyte balance, neonatal disorders, psychopathology, feeding and diet, cardiovascular disturbances, hematology, endocrinology and infectious diseases are all dealt with both fully and compactly. The practicing pediatrician as well as the pediatric teacher will find this volume indispensable. There is an excellent index, although one misses the bold type used in the earlier edition to indicate the location of the main discussion of a given topic. The many photographs, drawings and diagrams are excellent.

* * *

MORAL THEORY OF BEHAVIOR, THE—A New Answer to the Enigma of Mental Illness—Frank R. Barta, M.D., F.A.C.P., Director, Department of Psychiatry and Neurology, Creighton University School of Medicine, Charles C. Thomas, publisher, Springfield, 1952. 35 pages, $2.00.

In this small book Dr. Barta cites refutations of all extant theories of mental illness, and bases his theory on Thomistic and Aristotelian principles of philosophy and psychology which delineate sin and involuntary behavior. He defines mental illness as a variety of involuntary behavior; ignorance, rather than unconscious forces, accounts for the mentally ill person's irrational behavior. Reeducation, in the religious and moral sense, is necessary, and group therapy can be carried out "by physicians untrained in the specialty of psychiatry."

* * *

PSYCHIATRIC AIDE EDUCATION—Bernard H. Hall, M.D.; Mary Gangemi, R.N., Litt.M.; V. L. Norris, A. B.; Vivienne Hutchens Vail, A.B., P.A; and Gordon Sawatsky, A.B., P.A.: The report of an experiment conducted by The Menninger Foundation in cooperation with The Topeka State Hospital under a grant from The Rockefeller Foundation. Grune and Stratton, New York, 1952. 168 pages, $5.75.

Hall's book on the experiment of training 85 selected aides shows clearly the responsibility on the part of both psychiatric nurses and psychiatrists to contribute to further development of psychiatric aide education. Greater use of the psychiatric nurse in the therapeutic team is also a necessity. Response to the interest created by this book is shown by the fact that two national nurses' organizations have combined in order to investigate the problem of functions of the aide and standards of training.

* * *

SEXUAL ADJUSTMENT IN MARRIAGE—Henry Olsen, M.D., Henry Holt and Company, Inc., 383 Madison Ave., New York 17, 1952. 310 pages, $6.00.

Although written by a Danish authority on sexual education, this book has many factual errors, e.g., statements that syphilis is almost unknown in persons who are circumcised; that real mental illnesses seldom occur at menopause; and that lasting cure in syphilis cannot be positively proved.

The book is much inferior to our many excellent publications on sexual education and sexual adjustment in marriage.

* * *

FROM FISH TO PHILOSOPHER. Homer W. Smith, Professor of Physiology, New York University College of Medicine. Little, Brown and Company, Boston, 1953. 264 pages, $4.00.

In this really exciting book Professor Homer Smith has built around the kidney a bewilderingly erudite history of evolution. The richness of allusion, the wealth of detail leave one almost breathless; Dr. Smith's simple and yet polished style make for delightful and easy reading. And yet the high fidelity to scientific fact takes it quite out of and above any category of "popular science." This is a book for those with a real desire to be informed and with respect for sound scholarship. They will find it hard to put it down. Professor Smith's almost chilly adherence to proven facts, his stripping of the subject of any trappings of idealism or mysticism are a long step from the day of Darwin and will make some readers a little uneasy as we all are in face of the bare truth. And still one realizes that while this book is very much about fishes it is the work of a first-rate philosopher.

* * *

YEAR BOOK OF OBSTETRICS AND GYNECOLOGY—Series 1953-1954. Edited by J. P. Greenhill, M.D., F.A.C.S., Professor of Gynecology, Cook County Graduate School of Medicine. The Year Book Publishers, 200 East Illinois Street, Chicago, 1953. 567 pages, $6.00.

The 1953-1954 series covers the review of articles taken from the journals received from July 1952 to July 1953. It would seem more accurate if the series would be called the 1952-1953 series. When these excellent Year Books are placed on library shelves it would appear more confusing to call them the 1953-1954 series.

Greenhill has presented the articles and his comments in excellent fashion. The Year Book serves two purposes. First, it gives one a summary of many journals not available to the physician, and second, those periodicals which he had and did not read containing important articles are summarized for him.

These Year Books, conveniently arranged in chapters, give ready reference to what is new in a particular subject, as well as furnishing the important literature for writing or discussing papers.

* * *

HYPERTENSIVE DISEASES — Causes and Control. Henry A. Schroeder, M.D., F.A.C.P., Associate Professor of Medicine and Director, Hypertension Division, Washington University School of Medicine; with many contributors. Lea and Febiger, Philadelphia, 1953. 610 pages, 164 illustrations and 3 color plates, $10.00.

This monograph represents its author's experiences in the field of arterial hypertension, with emphasis on his views as to pathogenesis and classification. Much space is devoted to the results obtained by the writer and his colleagues in experimental animals and to their views on chemical abnormalities which might provoke or sustain hypertension. One such substance, pherentasin, was discovered by Schroeder in the blood of hypertensive patients and is considered at length (adequate confirmation of the importance or even the existence of this material has not appeared from other laboratories as yet).

A proposed therapeutic regimen using Hyphex (the author's contraction for the combined use of 1-*hy*drazino-*ph*thalazine and *hex*amethonium) is presented in relation to the antagonism of these agents toward neurogenic stimuli, renal ischemia and pherentasin. Details for the physician's use of Hyphex, commencing with patients in hospital, are given; hypotensive and associated beneficial results are reported in the majority of patients without renal failure. Faint warnings appear regarding late toxic effects which resemble disseminated lupus erythematosus and which have been reported more fully in recent issues of the Journal of the American Medical Association. Relatively few will agree that Hyphex represents a "simple and specific" mode of therapy, none can doubt that it "leaves much to be desired," all may be grateful to Schroeder for his continuing scientific and therapeutic investigations.

Despite warnings that the work is largely a personal record and that it is deliberately provocative, the reader may find himself unpleasantly provoked from time to time by the dogmatic tone. As minor points, one might object to the

discussion of the gallop sound or the repeated use of "microphotograph" and "stethescope." It seems at least a little inconsistent to "prefer not to tell a patient his pressure unless it is being controlled" (page 381) while requiring self-determination of pressure levels during attempted control by Hyphex (page 484). The use of Rauwolfia is conspicuous by its interesting and nearly total absence from the discussion on therapy.

One somehow misses the broader clinical viewpoint which might have been supplied by more attention to such writers as Ayman. A medical student might even believe from this book, for example, that most hypertensive patients need Hyphex; such an error would not be entirely the fault of the student unversed in the lore of hypertension. For those more advanced who wish the record of Schroeder's work, the volume is highly recommended.

* * *

A SOURCE-BOOK OF MEDICAL TERMS. Edmund C. Jaeger, D.Sc., formerly Head, Department of Zoology, Riverside College, Riverside, California, Charles C. Thomas, publisher, Springfield, Illinois, 1953. 145 pages, illustrated, $5.50.

In this book one may find the origin and meanings of medical terms. The author has assembled the numerous word elements, combining forms, prefixes and suffixes from which modern medical terms have been coined. With each entry examples are given. These, in turn, are broken down into their basic formative elements, a very helpful etymological treatment.

There is little attempt to write formal definitions. The author is inquiring into the origin and literal meaning of words, their applications in special cases, their history, and how they happen to be spelled as they are. The book therefore does not replace a medical dictionary—but it is a valuable supplement.

An introductory section on word-building deals with the basic principles used in the construction of medical words. This can be useful to the student who has had classic languages and then relegated them to his past. (The author recommends it to medical students with the unworthy suggestion that it will be a life saver in examinations!)

The physician interested in etymology will get great pleasure from glancing or browsing through this book. Those interested in medical writing will do well to study it. It can help avoid many of the errors indulged in by those of us whose medical technique is superior to our grammatical technique. The book is at its best when the author is most interested and explains a term in detail or by means of line drawings.

* * *

THE YEAR BOOK OF DRUG THERAPY (1953-54 Year Book Series). Edited by Harry Beckman, M.D., Director, Departments of Pharmacology, Marquette University Schools of Medicine and Dentistry, The Year Book Publishers, Inc., 200 East Illinois, Chicago, 1954. 538 pages, $6.00.

This generally excellent Year Book is heartily recommended to the practicing physician who has not the time to keep closer contact with the literature on therapeutics.

* * *

A TEXTBOOK OF PATHOLOGY—An Introduction to Medicine—6th Edition. William Boyd, M.D., Dipl.Psych., M.R.C.P. (Edin.), F.R.C.P. (Lond.), F.R.C.S. (C.), LL.D. (Sask.), D.Sc. (Man.), M.D. (Oslo), F.R.S. (C.), Professor of Pathology, University of British Columbia, Lea and Febiger, Philadelphia, 1953. 1024 pages, 570 illustrations and 32 color plates, $12.50.

It is safe to say without documentation that Boyd has been read profitably and with delight by the majority of English-speaking physicians and medical students. The masterful command of descriptive writing, the remarkable aptness of metaphor and synonym and the facile readability of the author's style have won and retained for this book its great popularity. Dr. Boyd is to be commended for achieving a significant reduction in the length of the volume at a time when more and more massive new and revised texts appear to be the fashion. A nice sense of relative importance of new ideas, experimental results and factual observations is essential to this end. In this edition, at least 80 items have been added, 20 or more sections have been rewritten completely, and an entirely new section on the skin has been prepared. Seventy additional illustrations and three new color plates have been inserted. All of this has been achieved without loss of continuity, break in style or noticeable conflict.

It is true of the present editions, as well as of the former ones, that many of the black and white figures might be improved; the color plates are not nearly as good as could be achieved. Although many pathologists disagree with various assertions in the text, the intelligent medical student need not be compromised by accepting the generalities as expressed.

This reviewer believes that Dr. Boyd has achieved his goal: a pathology textbook that introduces students to the study of medicine.

* * *

PEDIATRIC GYNECOLOGY—With Sections on Urology and Proctology—3rd Edition. Goodrich C. Schauffler, M.D., Assistant Clinical Professor of Obstetrics and Gynecology, University of Oregon Medical School, The Year Book Publishers, Inc., 200 East Illinois Street, Chicago, 1953. 318 pages, $7.50.

This new edition, appearing six years after the previous one, allegedly represents a complete revision of the text. However, a careful comparison with the previous edition discloses that this is hardly the case. While the length of the book seems to have been decreased by some sixty pages, this has been accomplished by the use of smaller type and by deleting an appendix which listed commercial hormone preparations. A short discussion of the embryological development of the female genitalia, written by an anatomist, has been added as a new chapter. As for the rest of the text, it has been changed here and there by the addition or deletion of a few words, but it really hasn't been revised with any thoroughness. It contains the same discussions of vulvar irritations, masturbation, vaginitis, and problems related to uterine bleeding, or the lack of it, occurring at puberty. Contributors other than the senior author have provided short chapters on pediatric surgery, urology and proctology, and there are two final sections dealing with social and medicolegal aspects of pelvic disease in the young female.

There are a number of things in this volume which are at variance with modern gynecological thought and some of the therapeutic recommendations are phrased in such vague, albeit flowery, language that the reader will find little to aid him in dealing with specific problems. Many of the illustrations are not particularly good and quite a few are badly reproduced. The only new ones are two used in the chapter on embryology, and the only deletion was a full-page plate showing the technique of circumcision. As in the previous edition, the book closes with an appendix listing state agencies administering services to children by virtue of the Social Security Act. This list is offered to assist physicians in solving social problems related to sexual misconduct toward children or by children.

Your reviewer's opinion of this book has not been elevated by the new edition and it cannot be recommended in its present form. Undoubtedly there is a need for a reliable monograph on gynecological disorders in children, and it is hoped that the current volume ultimately will fill this need by virtue of a thorough and painstaking revision.

THE CHEST—A Handbook of Roentgen Diagnosis—2nd Edition. Leo Rigler, M.D., Professor and Chief, Department of Radiology, University of Minnesota. The Year Book Publishers, Inc., 200 East Illinois, Chicago, 1954. 380 pages, $8.00.

The combination of the brief text or handbook with the well-illustrated atlas is a desirable method of presenting certain subjects. The present volume exemplifies this method in neat fashion.

After the usual type of introduction, with consideration of methods of fluoroscopy and roentgenography, there is an excellent section dealing with normal observations of the chest from the roentgenological viewpoint. This is followed by a series of sections on pathologic conditions, in which the various pulmonary systems (bronchi, parenchyma, pleura, mediastinum and so forth) are completely illustrated.

The section on normal bronchography has some new illustrations of the anatomy of the tracheobronchial tree. Some of the segmental bronchi carry numbers at variance with those recommended by the International Committee. With all due respect to Boyden and the author, this must be regarded as unfortunate. At any rate, it might have been desirable to carry both sets of drawings in order that the student and practicing physician might be able to use a terminology consistent with a majority of the literature.

This second edition appears about eight years after the first; it has twenty-eight more pages and several more illustrations, all of excellent quality. The author is Professor and Chief of the Department of Radiology at the University of Minnesota.

* * *

PRACTICAL METHODS IN BIOCHEMISTRY—6th Edition. Frederick C. Koch, late Frank P. Hixon Distinguished Service Professor Emeritus of Biochemistry, University of Chicago, and Martin E. Hanke, Associate Professor of Biochemistry, University of Chicago. The Williams and Wilkins Company, Baltimore, 1953. 537 pages, $5.00.

The fact that this is the sixth edition of this laboratory manual indicates its value and popularity. Although a laboratory text in biochemistry, the theory behind each test or group of tests is briefly but clearly discussed, thus emphasizing the significance of the text. The book is comprehensive and especially well designed for students specializing in biochemistry. For medical students, there are illustrative experiments which can be selected for the limited laboratory time in the medical curriculum. Many of the tests described are of little interest to the practical-minded medical student. Experiments are grouped in four parts: The Chemistry of Cell Constituents, The Chemistry of the Digestive Tract, Blood and Urine, and Enzymes, Vitamins and Hormones. An appendix gives general laboratory directions, together with directions for preparation of laboratory reagents, a table of atomic weights and a table of logarithms. There is an extensive index.

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BALLISTOCARDIOGRAPHY—The Application of the Direct Ballistocardiograph to Clinical Medicine—William Dock, B.S., M.D., F.A.C.P., Professor of Medicine, New York State University College of Medicine; Harry Mandelbaum, M.D., F.A.C.P., Lecturer in Medicine, New York State University College of Medicine; and Robert A. Mandelbaum, M.D., Assistant in Medicine, Jewish Hospital of Brooklyn, The C. V. Mosby Company, St. Louis, 1953. 293 pages, 153 illustrations, $9.50.

Only a few years ago Dr. Dock and his colleagues discovered that ballistocardiography need not remain in the research laboratory with expensive equipment, but that it could become of great clinical interest and even value. Their discovery, based on remarkable ingenuity in the application of physical principles to simple gadgets, has produced such a flood of studies that scarcely a month passes without a paper on ballistocardiography in some medical journal.

In this most unusual book, the authors present in clear detail their findings in all types of subjects and patients. They not only discuss the application of ballistocardiography to clinical medicine, but also range far beyond the book's title to add to the reader's knowledge of practical cardiology, cardiac physiology and physics. No wild claims are made for the diagnostic or prognostic merits of the method; in fact, physicians are repeatedly warned that ballistic tracings constitute but one part of an examination and must be interpreted in the light of other findings. As with the electrocardiogram, normal records may accompany heart disease and vice versa. Unlike the electrocardiogram, a ballistocardiogram is related to ejection of blood from the heart and far exceeds the former in recording the pumping activity of that organ.

Among its many chapters, the volume includes those on techniques, interpretation, physiological relations, and the effects of cardiac and pulmonary diseases and of smoking on the records. The book is well illustrated, with a satisfactory index and bibliography. It is highly recommended to all medical physiologists and clinicians, and should be required reading for everyone with a ballistocardiograph.

* * *

THE PSYCHOLOGY AND PSYCHOTHERAPY OF OTTO RANK—Fay B. Karpf, Ph.D., Philosophical Library, New York, 1953. 129 pages, $3.00.

The emergence and development of psychoanalysis as a psychotherapeutic technique attracted many disciples to the leadership of Sigmund Freud whose interest and energy and powerful personality won him vast prestige and the title "master." Among those early disciples were three fated to reject one or another or all of the master's foundation concepts which may be summarized as (1) the unconscious, (2) repression, (3) psychosexuality, (4) therapeusis, resistance and transference, insight interpretation, free association, and dream analysis. Freud later restated some of these to fit into his theories of ego, id. and superego.

The diversionists Jung and Adler were medically trained, and like Freud himself primarily concerned with psychoanalysis as a healing technique.

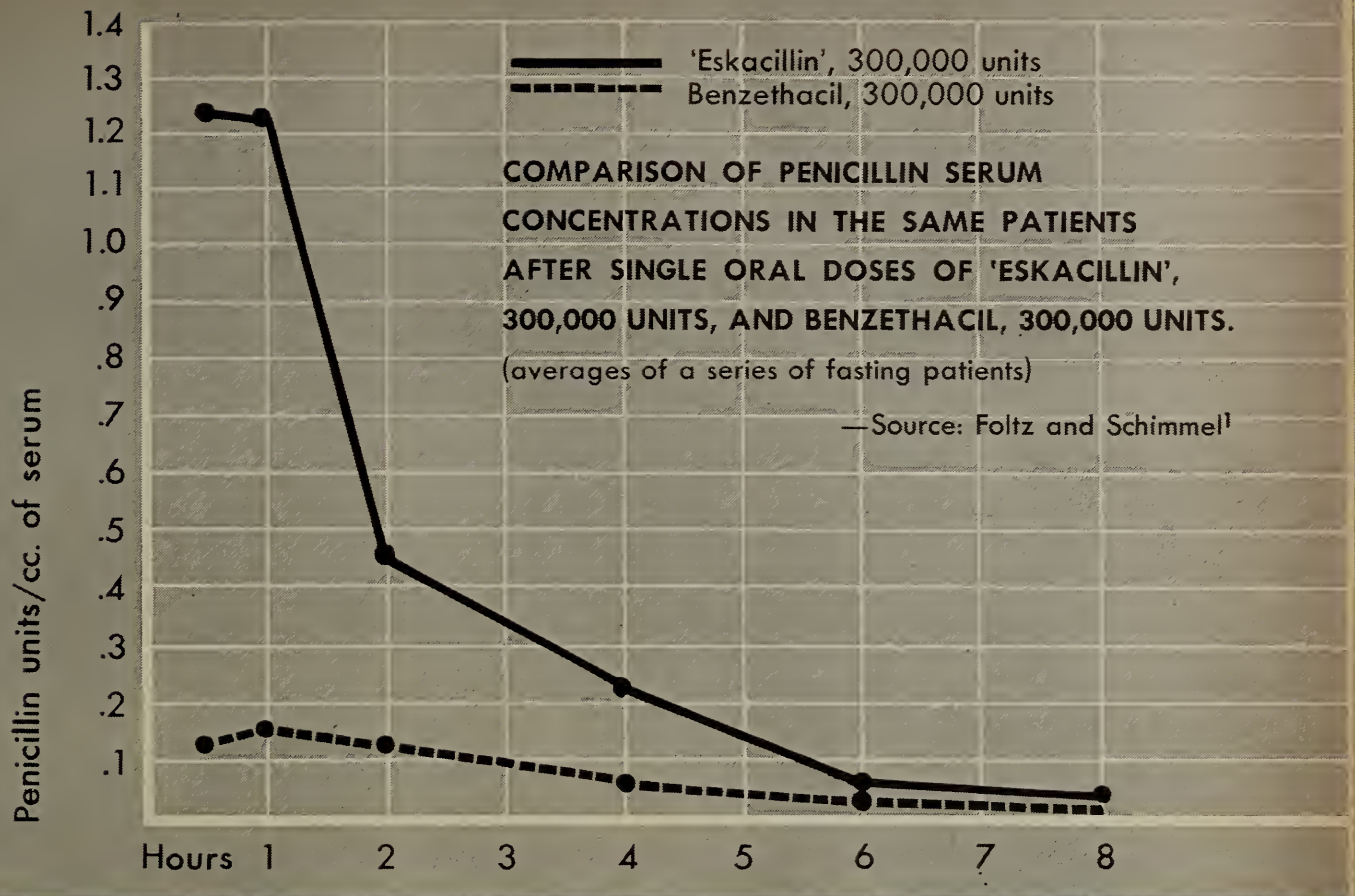
The third rebel, Otto Rank, was not medically trained, his preparation was varied, mathematics, logic, and the humanities with emphasis on anthropology providing most of his background. He accepted the biological slant that influenced his early work piecemeal from Freud, a fact that accounts for the very apparent contradictions in his teachings.

However, always he was more interested in the essential theoretic aspects of psychoanalysis than in therapy which he saw always as an educational technique used to help persons adjust by will and effort in the culture in which they must live. This point of view was greatly reinforced when Rank came to live among non-Germans in France and in the United States.

More and more he was revolted by what he considered cynicism and dogmatism of the Freudian gospel. Rank's teachings, however, have been influential in American social psychology and the thought of the present neo-Freudians.

Even Freud's concepts often show the effects of Rank's philosophy but when the disciple refutes the premise of the unconscious, the sexuality theories, and female inferiority, the break was inescapable and not to be healed. The bitter recrimination that followed the defection of Jung and Adler, however, was escaped.

This is a well organized, interestingly written book. is well worth reading by anyone concerned with the psychological approach to the problems of behavior.



COMPARISON OF PENICILLIN SERUM CONCENTRATIONS IN THE SAME PATIENTS AFTER SINGLE ORAL DOSES OF 'ESKACILLIN', 300,000 UNITS, AND BENZETHACIL, 300,000 UNITS.

(averages of a series of fasting patients)

—Source: Foltz and Schimmel[1]

the 'Eskacillins'	*per 5 cc. teaspoonful*
'Eskacillin 50'	50,000 units potassium penicillin G
'Eskacillin 100'	100,000 units potassium penicillin G
'Eskacillin 250'	250,000 units procaine penicillin G
'Eskacillin 500'	500,000 units procaine penicillin G
'Eskacillin 100-Sulfas'	100,000 units potassium penicillin G plus a total of 0.5 Gm. (0.167 Gm. each) of three sulfonamides (sulfadiazine, sulfamerazine, sulfamethazine)
'Eskacillin 250-Sulfas'	250,000 units procaine penicillin G plus a total of 0.5 Gm. (0.167 Gm. each) of three sulfonamides (sulfadiazine, sulfamerazine, sulfamethazine)

Gallbladder Disease Prevalent Among Young Persons

The maxim, "fair, fat and 40," is not a proper one to describe the typical victim of gallbladder disease, in the opinion of Drs. George D. J. Griffin and Lucian A. Smith, Rochester, Minn.

Although the majority of persons suffering from gallbladder disease are women over 40 years of age, a study by the doctors has shown that many persons so afflicted are under the age of 30. Writing in a recent issue of the *Journal of the American Medical Association*, the doctors reported on a study of 245 persons with gallbladder disease seen at the Mayo Clinic during 1948 and 1949.

Eight of these patients (3.3 per cent) were 20 years of age or less, seven (2.9 per cent) were 21 to 25 years of age, and 20 (8.2 per cent) were 26 to 30 years of age, they stated, adding:

"Thus, 6.2 per cent were 25 years of age or less, and 14.4 per cent were 30 years of age or less. In this latter combined group, the mean age was 24 years. The mean age of these patients at the onset of symptoms of cholecystic disease was 18 years. Thus, disease of the gallbladder begins at an age that is even less than our figures would imply."

Of the total 245 patients studied, 154 had been operated on for inflammation of the gallbladder, 65 had symptoms and were under medical management, 21 were without symptoms, and 5 had cancer of the gallbladder, the doctors said.

They pointed out that the influence of sex of the patients with gallbladder disease was undeniable. Of the 240 patients who had noncancerous gallbladder disease, only 35 (14.6 per cent) were males. They added that contrary to common belief, they did not think pregnancy was a contributing factor to the sex incidence of gallbladder disease as their study showed that only 4 of the 15 patients under 25 years of age had been pregnant.

The doctors stated that they were "impressed by the occurrence of a family history of disease of the gallbladder in the majority of those cases of gallbladder inflammation" which they had seen.

Included in the doctors' study were only those patients in whom gallstones were evident on x-ray study or in whom pathological examination after surgery proved the presence of an inflammation of the gallbladder. Many of the patients excluded from the study were adolescents and young adults who the doctors believed in time will prove to have inflammation of the gallbladder.

Dr. Griffin is a fellow in surgery at the Mayo Foundation, and Dr. Smith is associated with the division of medicine, Mayo Clinic and Mayo Foundation.

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1. Rev. Gastroenterology 20:744 (Oct.) 1953; abstract in J. A. M. A., 153:1580 (Dec. 26) 1953.

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Periodic Medical Examination of Business Executives Urged

(Continued from Page 61)

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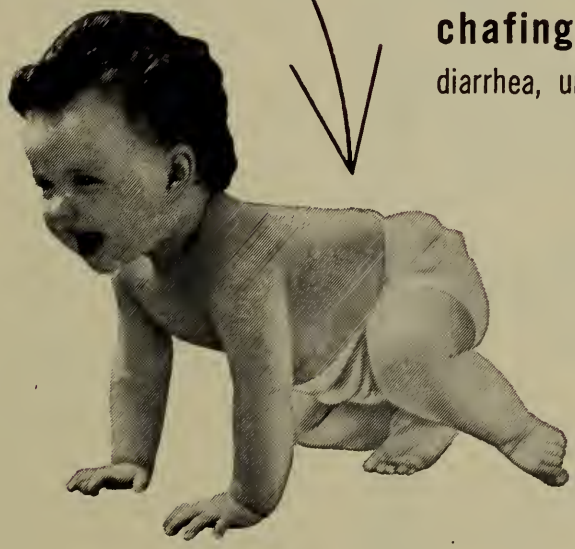

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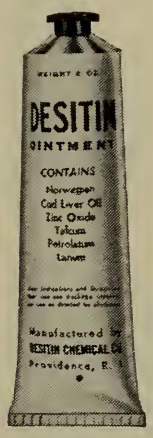

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World Medical Association To Establish International Committee on Occupational Health

The World Medical Association, representing 700,000 physicians of 46 national medical societies, announced recently that it plans to establish an International Committee on Occupational Health for the benefit of industrial workers everywhere.

Dr. Louis H. Bauer, New York, secretary-general of the World Medical Association, said the international committee will be made up of physicians who are members of the W.M.A.

Dr. Bauer, who is a past president of the American Medical Association, said on a visit in Chicago that there is a strong possibility that the World Medical Association and the Council on Industrial Health of the American Medical Association will sponsor an International Conference on Occupational Health in 1957. The site for such an international congress has not been decided.

At an initial meeting in New York recently, more than 60 industrial health leaders in the United States explored the feasibility of embarking on such a program and urged the W.M.A. to do so.

"Since the World Medical Association represents nongovernmental agencies, its efforts to improve the occupational health of workers and their families will be directed to individual physician members of the World Medical Association," Dr. Bauer said. "The whole movement will be a gigantic undertaking on an international, grass-roots level."

Industrial health leaders, representing medicine, industry, and government, pledged support of the new movement at the New York meeting because it was felt that every country with any degree of industrialization has industrial health problems.

Dr. Carey P. McCord, Ann Arbor, Mich., a consultant to the Institute of Industrial Health at the University of Michigan, stated:

"Industrial physicians everywhere have much to communicate and much to learn from each other. The World Medical Association has not only an opportunity but an obligation to see that practicing physician participation in industrial medical affairs is properly represented at international levels."

Dr. Bauer listed these immediate objectives of the International Committee on Occupational Health after it is appointed:

1. To formulate and promulgate standards for better medical and health services to employed groups.

2. To prepare a report on the relation of the physician to these major components of industrial health: administrative relationships, health counseling and health education, preventive medicine, workmen's compensation, rehabilitation, medical care, and environmental hygiene.

3. To meet with representatives of other inter-

(Continued on Page 86)

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Dr. Nafe Reports on Nursing Problems

Some time ago, Dr. Cleon A. Nafe, Indianapolis, a member of the House of Delegates, was invited to represent the A.M.A. at a meeting of the Boards of Review of the National League for Nursing. Recently he submitted a seven-page typewritten report on the ten-day meeting to the A.M.A. Board of Trustees.

"In order to create a better understanding among physicians concerning nursing education," Dr. Nafe concluded in one section of his report, "it would seem to me that physicians generally should be more widely acquainted with the National League for Nursing and its purposes."

"The National League for Nursing is composed of all those interested in nursing. While the great majority of the members are nurses, all other individuals and agencies interested in nursing can secure membership through state chapters.

"The primary concern of the league is two-fold: nursing services and nursing education. Its activity is entirely different from the American Nursing Association whose primary interest is the welfare of the individual nurse . . .

"Certainly the medical profession should discuss very widely the overall educational policy of the National League for Nursing, and aid in every way to solve some of the problems. I believe this should be approached with a constructive and sympathetic attitude. It is my impression that those who are working on this problem are very sincere in their views and would welcome intelligent help and guidance."

—The A.M.A. Secretary's Letter

New Chairman of Council on Industrial Health

Dr. William P. Shepard, New York, second vice-president, health and welfare division, Metropolitan Life Insurance Company, has been elected chairman of the American Medical Association's Council on Industrial Health.

Dr. Shepard succeeds Dr. Anthony J. Lanza, New York, director of the Institute of Industrial Medicine, New York University-Bellevue Medical Center.

Two new members of the council also have been elected. They are Dr. Lemuel C. McGee, Wilmington, Del., medical director of the Hercules Powder Company, and Dr. Charles F. Shook, Toledo, medical director of the Owens-Illinois Glass Company. They succeed Dr. Lanza and Dr. Clarence D. Selby, Port Huron, Mich., whose terms expired.

—The A.M.A. Secretary's Letter

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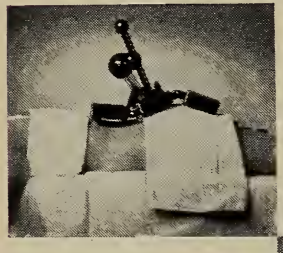

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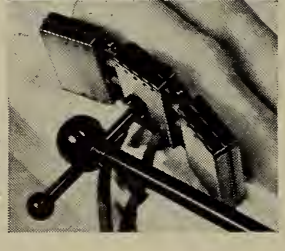

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The Importance of Rabies Control

The importance of eliminating rabies in the United States was stressed editorially in a recent issue of the *Journal of the American Medical Association*. Minimum requirements for sound local rabies control programs were given:

1. Mass immunization of dogs. This should be carried out intensively on a schedule that aims at the vaccination of all owned dogs within the shortest possible time.

2. Elimination of all stray dogs. Mass immunization will not reach the stray or ownerless dog, which remains as a potential threat in transmission of rabies. An efficiently conducted program requires the operation of a local pound or humane shelter where stray animals may be kept for a few days and, if unclaimed at the end of that period, destroyed humanely.

3. Reduction of excess numbers of wildlife carriers of the disease. Outbreaks of rabies in wild animals, particularly foxes, occur generally when the population of the species becomes particularly dense in an area. Organized county-wide trapping programs are the most effective means of reducing this over-population to a safe level in areas menaced by fox rabies.

4. Restraint of dogs while the control campaign is under way.

5. Good organization under health department auspices with the fullest use of all technical resources in the community.

"The outbreak of rabies in Chicago has emphasized the importance of mustering all knowledge of the disease and its control for a realistic attack on the problem," the editorial said. "Unfortunately it is more common than generally believed. Furthermore, it is found in many animals other than dogs, including cattle, skunks, cats, horses, squirrels, sheep and other warm-blooded creatures."

Rabies infection depends entirely on the entrance of virus-laden saliva into a wound generally inflicted by the bite of the rabid animal, according to the editorial. Indirect exposure by contaminated objects is of no real significance because the virus is easily destroyed in the atmosphere, and loses its virulence rapidly when exposed to light, heat and drying.

Attack rates of rabies depend, the editorial added, on: (1) the presence and amount of virus in the saliva of the biting animal; (2) the location of the bite on the body (bites around the head, neck and face are most dangerous; around the hands, feet, arms, and legs next in importance, and on the trunk least important); (3) the multiplicity of the bites; (4) the depth of the bite, and (5) the interposition of clothing.

Bite wounds should be cleansed with soap or de-

(Continued on Page 86)

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World Medical Association To Establish International Committee on Occupational Health

(Continued from Page 68)

national industrial health groups, such as the International Labor Organization and the World Health Organization, to define specific objectives, spheres of action and working relations.

4. To sponsor a discussion at an early session of the World Medical Association, independently or in conjunction with other agencies, to bring into focus its own program with that of existing international bodies.

"In this way," Dr. Bauer said, "the medical practitioner everywhere—individually and through his professional organizations—can understand more clearly the health problems of the worker and his employer. Industrial health is directly allied with public health in every country since a workman must be kept healthy 24 hours a day if he is to do an efficient job."

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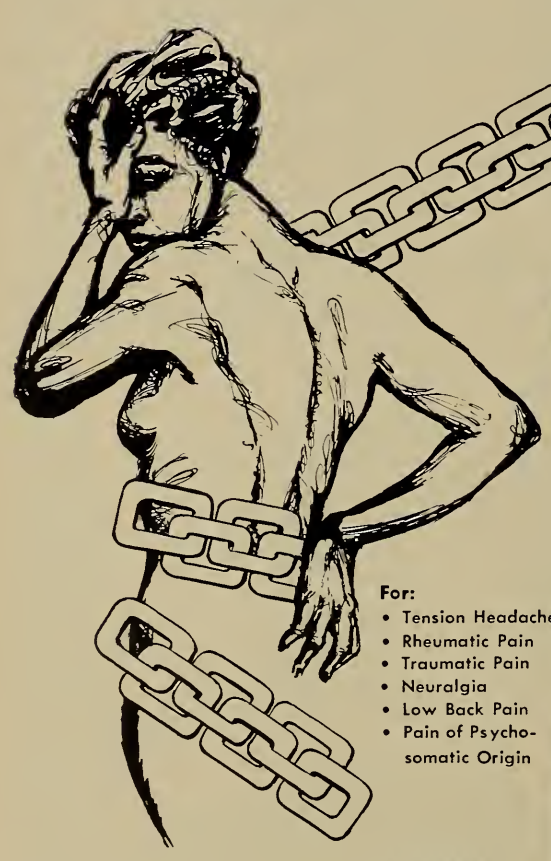
The Importance of Rabies Control

(Continued from Page 80)

tergent solution, the editorial stated. Strong mineral acids, such as nitric acid, may be resorted to in the case of a deep puncture type of bite wound that cannot be efficiently cleansed with soap or detergent solution. Further treatment should be based on the nature of the exposure and the clinical condition of the biting animal. Whenever possible, it is of paramount importance to capture and impound the biting animal for clinical observation.

"Antirabic inoculations are not without danger, and attention has been repeatedly called to the hazard of postrabies vaccinal paralysis in children who are subjected to the heavy doses of antirabies vaccine required when face bites occur," the editorial pointed out.

Rabies is one of the oldest diseases known to mankind and is unaffected by climate or seasons, according to the editorial. The greatest contribution to the knowledge of the disease was the work of Louis Pasteur, which led to the first effective vaccine. A new development in the specific biological treatment of exposed persons is the use of hyperimmune antirabies serum. This serum, however, is not yet available commercially. A new type of animal vaccine which gives superior immunity in dogs that lasts for three years is also being tested, the editorial added.



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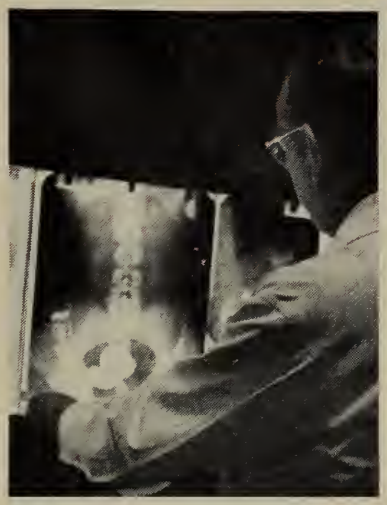

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1. McHardy and Browne: Sou. M.J. 45:1139, 1952.

2. Lorber and Shay: Fed. Proc. 12:90, 1953.

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Nutritional-Hormonal Therapy Aids Fertility, Prevents Miscarriage

An intensive, combined nutritional and hormonal regimen may aid in improving fertility and preventing miscarriage, according to an article in a recent issue of the *Journal of the American Medical Association.*

This conclusion was reached by Drs. S. J. Glass and M. L. Lazarus, Beverly Hills, following a study of 22 sterile men and 50 infertile women.

Thirty-four of the women had never borne children and six had become infertile for a variable number of years after having from one to three children. Of ten women who had miscarried two or more consecutive pregnancies, four had become infertile. The duration of infertility in the 50 women varied from two to 16 years.

Following the nutritional-hormonal regimen, pregnancy resulted in 19 of the 34 women who had never borne children, and in four of the six women who had become infertile after bearing children, the doctors stated. Of the 10 women who had experienced two or more consecutive miscarriages, eight subsequently had normal babies.

Of the 22 sterile men who were treated by the nutritional-hormonal regimen, 15 had improved formation of spermatozoa followed by pregnancy in 10 wives, the doctors said, adding:

"The favorable results were attained in variable periods of time, ranging from four to 22 months, with an average of over nine months in both sexes. Significantly, most of the patients experienced marked improvement in general health in addition to improved fertility."

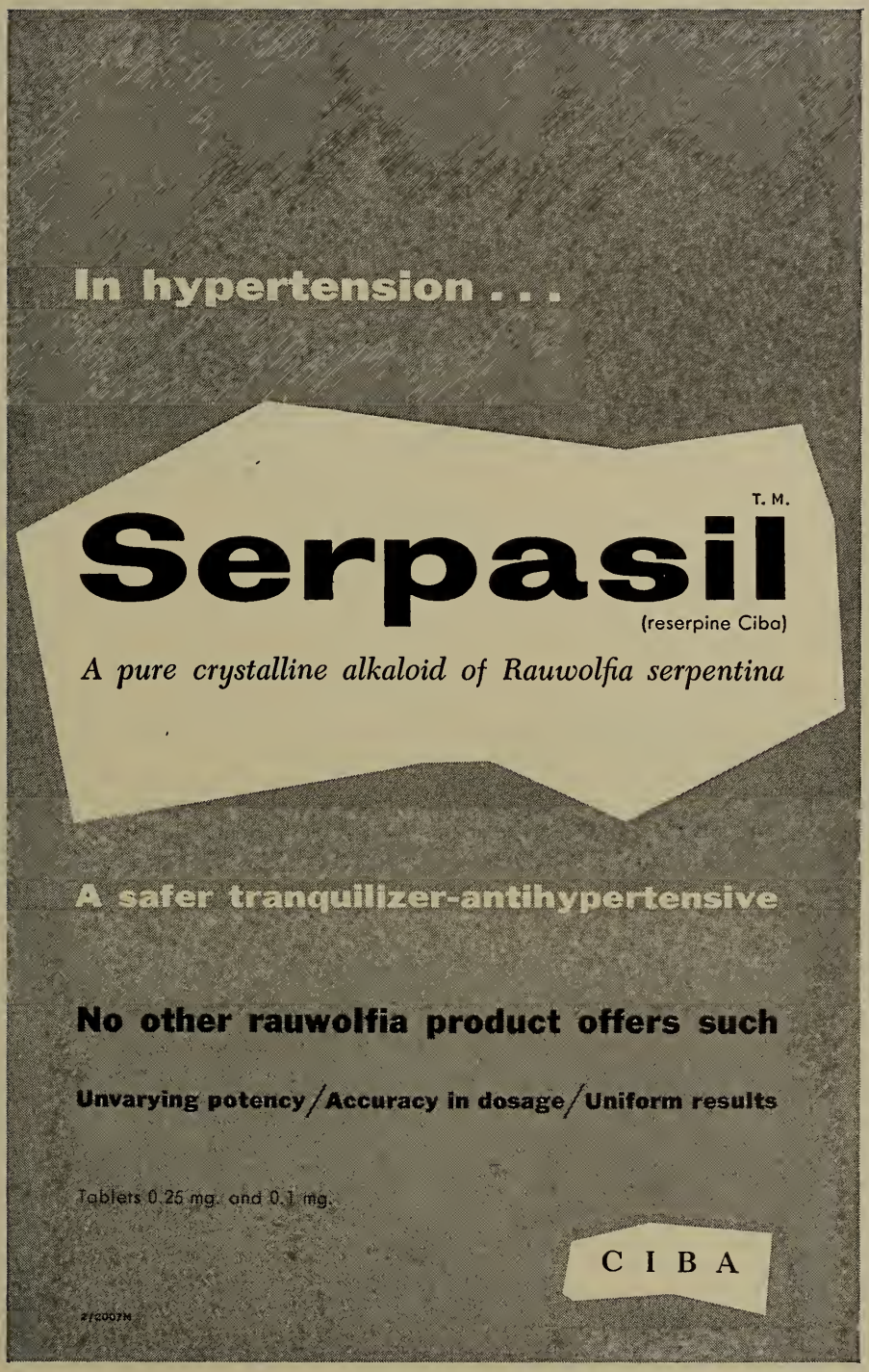
A broad spectrum of foods rich in proteins, vitamin B complex, vitamin A, brewer's yeast, rice bran extract, and wheat germ made up the doctors' nutritional program. After the patients had followed this regimen for 30 to 60 days, sex hormones were then added.

The doctors said they believed many cases of functional infertility and miscarriage may result from errors in sex hormone metabolism associated with degrees of nutritional and liver insufficiency.

"Good nutrition and normal liver function are synonymous," they stated. "Deficiency of either one is usually followed by some reciprocal effect on the other. Likewise, any significant chronic deficiency of nutrition and/or liver function reflects unfavorably on reproductive physiology.

"The favorable responses observed in this study suggest that the abundant nutritional regimen together with the supplements of sex hormones provide the added stimulus essential to normal gametogenesis and normal fertility.

"The results warrant further trials with the combined nutritional and hormonal therapy by all interested clinical investigators, at least until better or more specific treatment becomes available."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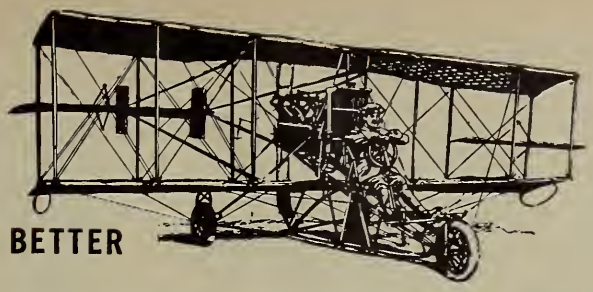

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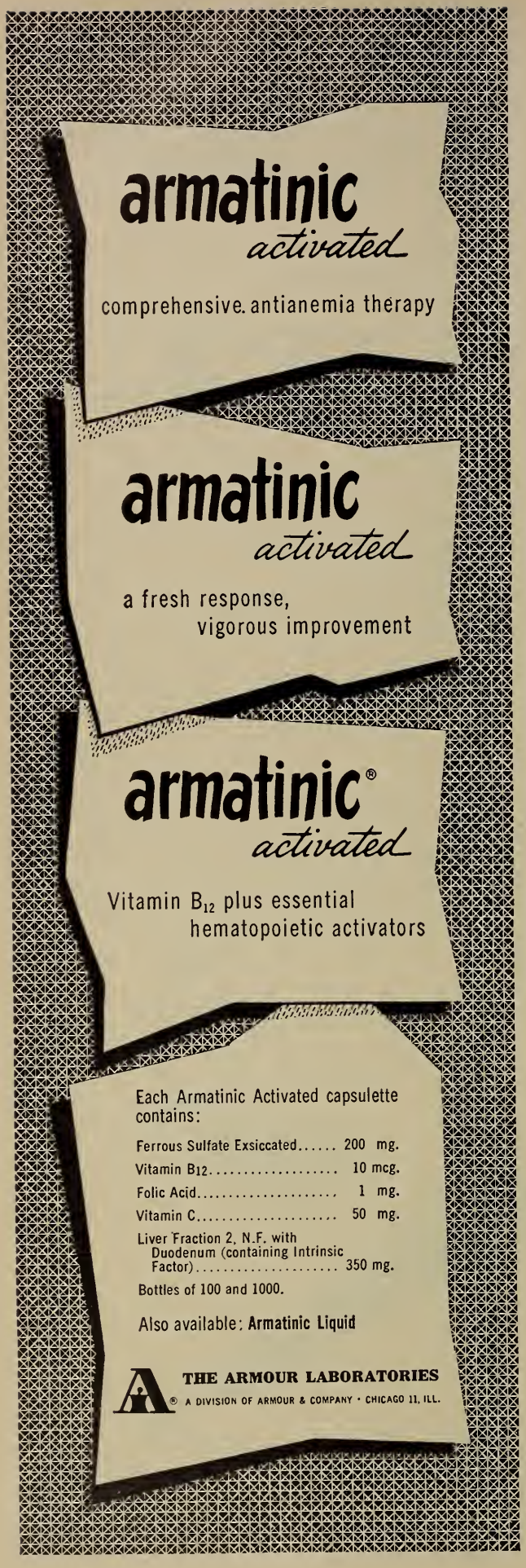

Parents' Unconscious Impulses Cause Antisocial Behavior in Children

Parents' unwitting sanction or indirect encouragement is a major cause of, and the specific stimulus for, such antisocial behavior as recurrent fire-setting, stealing, truancy, vandalism, unacceptable sexuality, and serious recurrent criminal behavior displayed by young delinquents or their adult counterparts, the psychopaths, in the opinion of Dr. Adelaide M. Johnson, Rochester, Minn., and Dr. S. A. Szurek, San Francisco.

This conclusion resulted from studies of delinquents and their parents carried out during the last decade, the doctors wrote in a recent issue of the *Journal of the American Medical Association.* The delinquencies under consideration were those arising in apparently "normal" families of good reputation, and not those largely determined sociologically in slum areas or juvenile gangs of any economic level, they stated.

"By means of study and concomitant treatment of the parents as well as of the child involved in the antisocial behavior, it becomes unmistakably evident that one or occasionally both parents derive unconscious, and less frequently conscious, vicarious gratification of their own poorly integrated forbidden impulses in unwittingly sanctioning and fostering such behavior in the child," the doctors said.

"In every patient brought for treatment, in whom simultaneous intensive study of the parents was possible, the child's defect in conscience was traceable to a like defect in the parents' own poor resolution of unconscious impulses to similar antisocial behavior. Thus, just as normal parents derive vicarious gratification from good behavior in their children, parents who have poorly integrated forbidden impulses apparently derive gratification from the bad behavior of their children."

Often a parent unconsciously may select only one child in the family to be the scapegoat for such feelings, the doctors pointed out. The formulas for the unconscious selection of the unfortunate scapegoat are multiple, as are the devious patterns for impressing him into his tragic role.

"A child's conscience is made, not born," according to the doctors. "It is not inherited ready-made, but is developed, especially during the first six years of life, primarily through identification in great detail with the total behavior of parents. This identification or mimicry embraces the conscious and unconscious operations of the parent. To an equal extent, conscience develops from the parents' conscious and unconscious image of the child and from their concepts and hopes for the child.

"The psychopathic personality or 'psychopath' of later years is the grown-up delinquent child with defects in conscience, who is in court for theft, burg-

(Continued on Page 18)

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Polio Susceptibility May Be Increased by Absence of Tonsils

Removal of tonsils and adenoids may increase susceptibility to bulbar and bulbospinal forms of poliomyelitis, it was stated editorially in a recent issue of the *Journal of the American Medical Association.*

Further study of this problem was urged by the editorial, which stated that data have suggested: (1) that the mere absence of tonsils and adenoids, regardless of the time of their removal, leads to increased susceptibility to bulbar and bulbospinal forms of polio, and (2) that if poliomyelitis strikes within a matter of days after an operation to remove the tonsils and adenoids, there is a greater risk that the patient will have the bulbar type and a severer illness.

"The relation between tonsillectomy and poliomyelitis and between the presence or absence of tonsils and poliomyelitis has been the subject of discussion for some years," the editorial stated.

"Data presented appear to suggest that the time when tonsillectomy is performed when related to the onset of poliomyelitis may be of less significance than the mere fact that tonsils are absent. Settlement of this aspect of the tonsil-poliomyelitis problem is of considerable importance to the entire medical world and merits further study in view of the growing belief that recent tonsillectomy may lead to increased susceptibility to the bulbar and bulbospinal forms of poliomyelitis."

Several studies on the relationship between the absence of tonsils and adenoids and the onset of bulbar poliomyelitis were reviewed in the editorial. One study described 1,947 patients, 51.9 per cent of whom had neither tonsils nor adenoids at the time the disease was contracted.

Of the patients afflicted with bulbar polio, 85.1 per cent previously had been subjected to the tonsillectomy procedure, while 68.7 per cent of the patients attacked by bulbospinal polio previously had undergone tonsillectomy. Of the patients with bulbar polio who previously had been subjected to tonsillectomy, 93.5 per cent died, as did 56.9 per cent of such patients with bulbospinal poliomyelitis.

Another study described in the editorial concerned 800 patients with polio, 500 of whom had been subjected to tonsillectomy and adenoidectomy. Of the 85 patients in whom bulbar polio developed, 85.9 per cent previously had been subjected to tonsillectomy. Bulbospinal poliomyelitis occurred five times more frequently in patients whose tonsils had been removed.

The incidence of both nonparalytic disease and spinal paralytic disease in this group of patients was higher in those without tonsils than in those with tonsils. In general, comparison of patients with tonsils and patients without showed that bulbar polio was three to four times commoner in patients subjected to tonsillectomy than in those not operated on, and that bulbospinal polio was three to five times more common in patients subjected to tonsillectomy than in those in whom such surgery had not been performed.

A third study reviewed pointed out that of 432 patients with acute anterior polio, 61 per cent of the patients afflicted with bulbospinal polio had had their tonsils removed, as had 76 per cent of those afflicted with bulbar polio. Seventy-eight per cent of the patients who died had neither tonsils nor adenoids when they become ill.

New Synthetic Drug Aids in Combating Shock

L-arterenol, a relative new, synthetic drug, has been found to be of value in combating shock, it was reported in a recent issue of *Archives of Surgery*, published by the American Medical Association.

Use of the drug in conjunction with whole blood, blood plasma and fluids helps to raise blood pressure and makes it possible for some patients in profound shock to undergo extensive, and at times lifesaving, surgical procedures, according to Drs. R. E. Fremont, N. M. Luger, S. N. Surks and A. Kleinman, Brooklyn.

They based their conclusions on a study of 22 patients treated with l-arterenol. The group consisted of six cases of shock associated with an acute surgical abdominal condition, 12 cases of shock occurring during or after major operations and associated in three instances with considerable blood loss, and four cases of severe hemorrhagic shock. The drug brought the patients out of shock when added to fluid replacement therapy which in itself had been ineffective.

Intravenous injections of the drug resulted in an immediate, striking improvement in the majority of cases, the doctors stated. L-arterenol is superior in its potency and controllability to some of the other similar drugs, they added. The only adverse action noted was a sloughing of the skin.

The doctors stressed, however, that l-arterenol must not be expected to abolish advanced hemorrhagic shock if the course of bleeding cannot be detected and eradicated. It is essential, they stated, that the cause of the shock state be known and definitive therapy undertaken as quickly as feasible; lost blood must be replaced and continued bleeding stopped.

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Parents' Unconscious Impulses Cause Antisocial Behavior in Children

(Continued from Page 10)

lary, forgery or worse. In every such instance providing us opportunity for careful study, a long history is revealed of parental sanction of antisocial offenses."

The doctors pointed out that children are masters at sensing parental interest or gratification, however subtle, at a tale of naughtiness. Even if punishment comes after the interest-arousing narrative, the damage has been done. If even disguised parental pleasure preceded the spanking, the child will repeat the performance. To please mother or father is worth the punishment, although the contradiction between seduction, through evincing pleasure, and the spanking is impossible for the child to reconcile, they said.

The unearthing of parental sanction for antisocial behavior in children is one of the most formidable challenges that confront psychiatrists, the doctors stated, adding:

"Treatment of the parent is fraught with difficulty. If the parent has provided conscious sanction of the child's delinquency, treatment is usually impossible. If the parental role was unconscious, the uncovering of the parents' problem is a miserable or

(Continued on Page 32)

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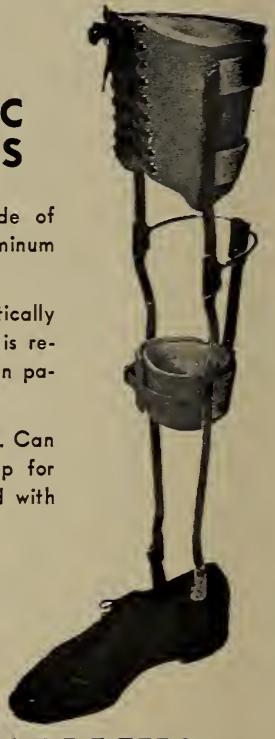

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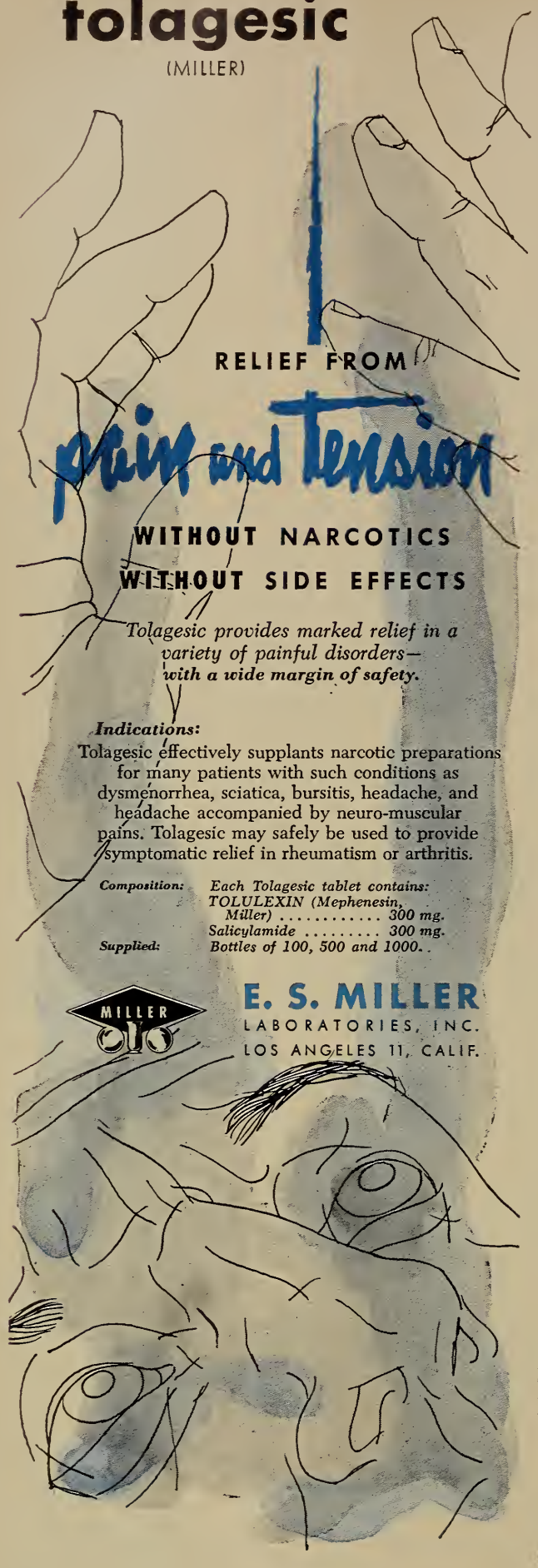

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Rest, Warm Air Prescribed As Common Cough Cure

Got a cough? If there's no major ailment behind it, the cure may be as simple as bed rest and moist air.

That's the prescription of Dr. Noah D. Fabricant, Chicago, writing in a recent issue of *Today's Health* magazine, published by the American Medical Association.

"Coughing can be due to any one of a large number of affections of the respiratory tract, including the familiar head cold, sinus disease, postnasal drip, excessive talking or singing, allergy, laryngitis and bronchitis," Dr. Fabricant noted.

He said some other causes of coughing are heart disease, excessive cigarette smoking, pressure on the bronchial tree from neighboring structures, tuberculois, cancer of the lung, tumors of the larynx, and bronchiectasis.

"Fortunately," he added, "most coughs of short duration are due to acute nasal infections which extend downward into the trachea and bronchi, giving rise to the popular saying, 'Whenever I have a cold in the head, it soon settles in my chest.' "

Treatment of a cough should take into consideration two factors—discovery of the cause and means for checking the cough, Dr. Fabricant said.

He related that bed rest in a room with moist, moderately warm atmosphere may cause a cough to subside or even disappear completely. The moist air "usually soothes the impulse to cough, whereas hot, dry air may provoke and prolong a cough," he explained.

"Continuing to be up and about," Dr. Fabricant warned, "not only prolongs the illness but broadcasts the infection to others."

And one cough—by a thoughtless person who does not cover his mouth by hand or handkerchief—can blanket the surrounding atmosphere with thousands of bacteria-laden droplets traveling at the amazing speed of nearly 105 miles an hour, the doctor pointed out.

Dr. Fabricant wrote that "various cough preparations taken without the advice of a physician are of doubtful value in relieving a cough." He suggested that when persistent coughing occurs, one should consult the family doctor, and concluded:

"In the not-too-distant past, before the day of 'wonder drugs,' physicians treated the common cough effectively with a cough preparation, an admonishment to the patient to go to bed in a moist, moderately warm room, and occasionally a twinkling hint to indulge in a therapeutic dose of an alcohol beverage.

"Today a younger generation of physicians is learning once again how effective such time-tested measures prove in treating simple, uncomplicated coughs. The antibiotic drugs and sulfonamides are invaluable in serious upper respiratory infections and have their rightful place in modern cough medication.

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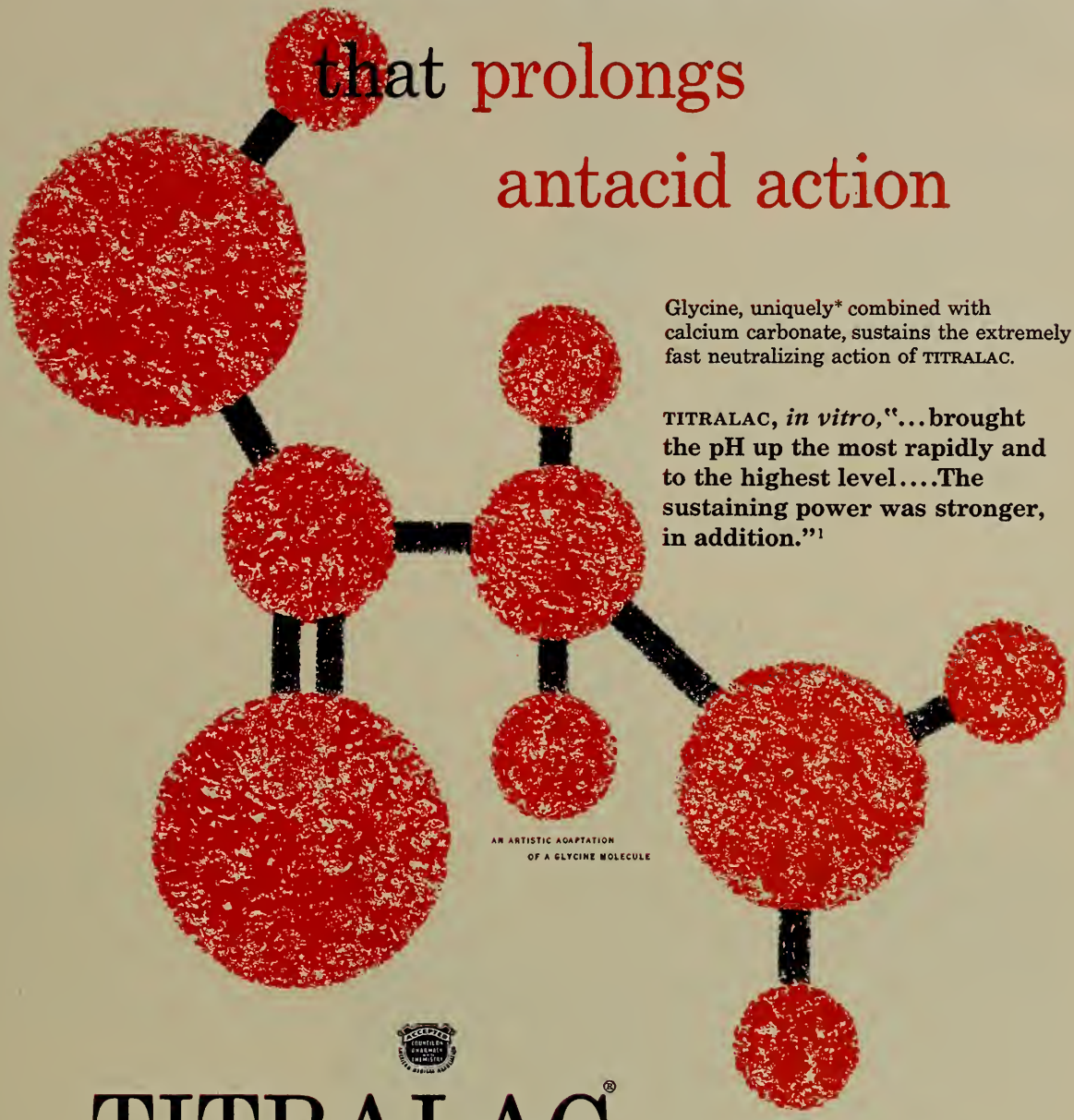

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1. Hammarlund, E. R., and Rising, L. W.: J. Am. Pharm. A. (Scient. Ed.) *41*:295, 1952.

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Parents' Unconscious Impulses Cause Antisocial Behavior in Children

(Continued from Page 18)

hazardous ordeal, and at times the therapy requires hospitalization."

When parents become aware of the cause for their child's delinquency, they may develop neuroses, the doctors stated. Troublesome as these neuroses may be, they are preferable to antisocial behavior, with its threat of perpetuation through generations.

"It is advocated that there be a disseminated knowledge of these origins of delinquency, aimed at the erection of parental conscience barriers against the fostering of vicarious misbehavior, since such behavior may be transmitted from generation to generation through interpersonal living," the doctors stressed. "Individual neuroses that may result, regardless of their severity, are more amenable to treatment than is the delinquency complex."

Dr. Johnson is associated with the section of psychiatry, Mayo Clinic, and Dr. Szurek with the University of California School of Medicine and the Langley-Porter Clinic.

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"If dreaming becomes so excessive as to interfere with adequate sleep, however, it may be symptomatic of an anxiety neurosis or a psychoneurosis. The mental state should then be investigated, and, if it continues unrelieved, psychiatric consultation is indicated."

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Cleansing Agents Cause of Much of Housewives' Eczema

Housewives' eczema is competing with housemaid's knee as an occupational hazard of being "just a housewife."

Housewives' eczema, an external skin condition resulting from contact with cleansing agents used in housework, is becoming more and more prevalent, Dr. Matthew J. Brunner, Chicago Heights, Ill., wrote in a recent issue of the *Journal of the American Medical Association.*

Synthetic detergents and many other known irritants such as ammonia water, hypochlorite bleaches, phosphates, abrasive powders, and organic solvents in waxes and polishes may cause eczema, according to Dr. Brunner.

Most cases of housewives' eczema begin with mild dryness, redness and scaling, Dr. Brunner stated. This becomes more severe under continued exposure to soap and water, and leads to fissuring and crusting. Eventually blisters form and thickening of the skin occurs. The first reaction, often on the sides of the fingers and in the webs, occurs with special frequency on the left fourth finger, under the rings. Severe cases may involve the hands, forearms, arms or face. Extreme itching, burning and discomfort are common complaints.

Many times the eczematous condition is aggravated by secondary influences of excessive sweating, especially during prolonged wearing of protective gloves or prolonged soaks or wet dressings, and by heavy applications of greasy ointments, Dr. Brunner added. Circulatory influences, including exposure to heat, alcohol ingestion and emotional upsets, also may cause persistence of the eruption.

"Treatment of housewives' eczema is based on these premises: that the eczema is primarily due to external irritation, that the inflamed skin is hyperirritable, and that it will react to certain influences and agents innocuous to intact skin," he said.

Contact with irritating agents must be avoided if the condition is to heal, Dr. Brunner pointed out, and the patient should do only a minimum amount of housework. Rubber gloves should be worn over separate inner cotton gloves during "wet work," the patient should wash only with tepid water and a special solution, and ointments prescribed should be applied lightly. As recurrences are not infrequent after reexposure to household irritants, continued use of rubber gloves for dishes and laundry work should be a permanent protective measure.

"Eczematous eruptions of the hands have always constituted an impressive proportion of all dermatological cases," Dr. Brunner stated. "As with other eczemas, eczemas of the hands have a varied etiological background, but it appears that an increasing number are being seen in housewives, among whom the factor of external irritation from cleansing

(Continued on Page 36)

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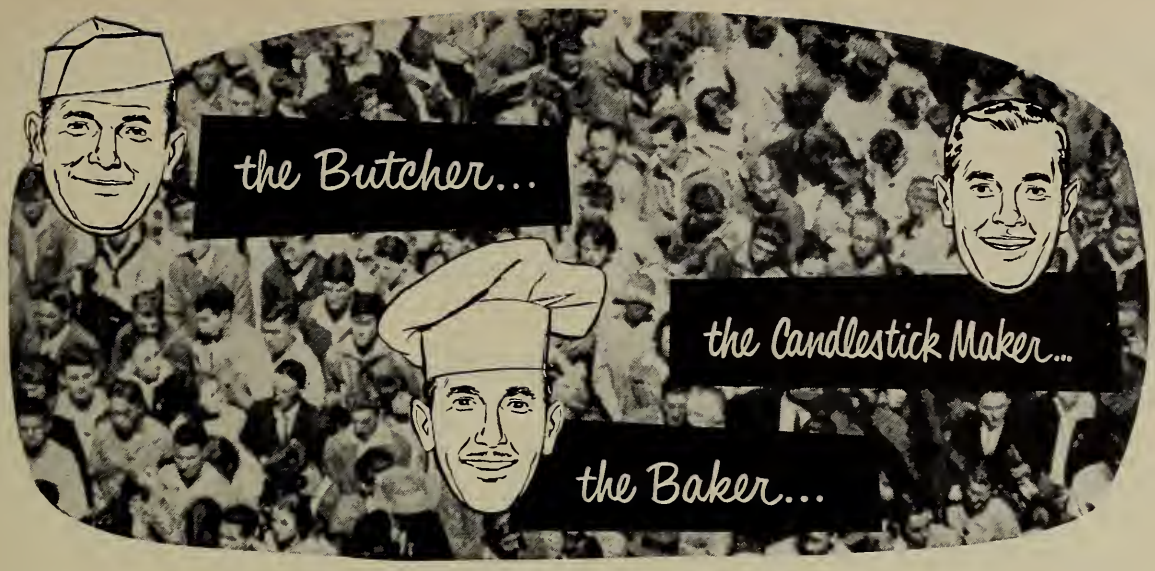

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†Estimated average

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Cleansing Agents Cause of Much of Housewives' Eczema

(Continued from Page 33)

agents used in housework may be of prime importance.

"Of the 145 cases of nonspecific eczematous dermatitis of the hands seen in the past 12 months, 108 were housewives. The duration of the condition at the time of examination varied, but many of these patients had had an eruption on the hands, intermittently or continuously, for years. Few eruptions could be cleared in less than four weeks, and some required up to three months of treatment.

"Similar eruptions may also be seen in bartenders, soda jerks, and others in occupations involving 'wet work.'"

Dr. Brunner is associated with the department of dermatology, Northwestern University Medical School.

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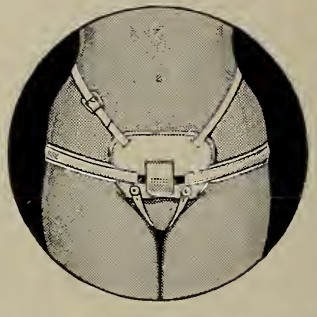

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1. Rev. Gastroenterology 20:744 (Oct.) 1953; abstract in J. A. M. A., 153:1580 (Dec. 26) 1953.

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"California Here I Come" will be the theme of the more than 12,000 physicians who will attend the 103rd annual meeting of the American Medical Association in San Francisco June 21 to 25.

Tentative plans for the world's largest medical convocation call for general scientific meetings to be held all day on Monday and on Tuesday morning, with the various scientific sections meeting on Tuesday afternoon, all day Wednesday and Thursday, and on Friday morning. All meetings will be held in buildings in the Civic Center area with the exception of the section on ophthalmology and a special Wednesday evening program, which will be held in the Terrace Room of the Fairmont Hotel.

Once again color telecasts of clinics and operations will be shown. They will originate from the San Francisco General Hospital and be received on two 4 x 6-foot screens in the Masonic Temple. The latest and best medical motion pictures will be shown throughout the meeting at the Masonic Temple. The world premiere showing of some outstanding films of broad general interest will take place Wednesday evening in the Fairmont Hotel.

Included in the approximately 200 scientific exhibits at the Civic Auditorium will be special features on fractures, blood banks, fresh pathology,

(Continued on Page 46)

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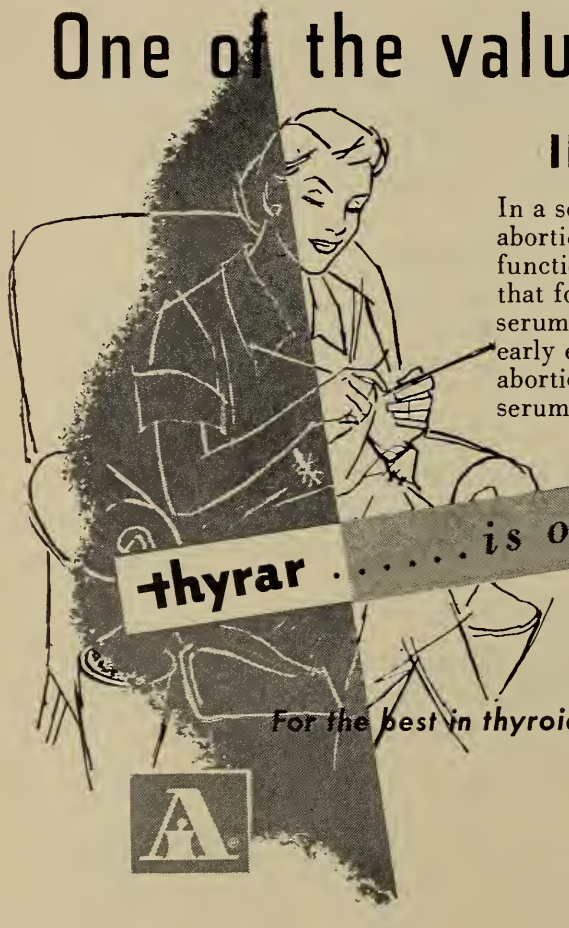

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(1) Perlmutter, M.: Metabolism 2: 81, 1953; (2) Jones, G. E. S., and Delfs, E.: J.A.M.A. 146: 1212, 1951; (3) Man, E. B., et al.: J. Clin. Investig. 30: 137, 1951.

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103rd Annual American Medical Association Meeting to Attract 12,000 Physicians

(Continued from Page 42)

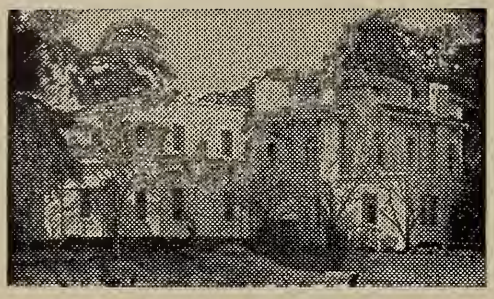
preceptorships, pulmonary function testing, and question and answer conferences on cardiovascular diseases. In the Technical Exposition, also to be held in the auditorium, about 400 firms will show physicians the latest developments in new drugs, books, instruments, and other adjuncts to the practice of medicine.

Official American Medical Association Membership Count

As of January 1, total membership in the American Medical Association stood at 146,723. This figure is broken down as follows:

Active members, including active members excused from the payment of membership dues, 133,841; associate members, 4,534; service members, 8,078, and affiliate members, 270.

—The A.M.A. Secretary's Letter



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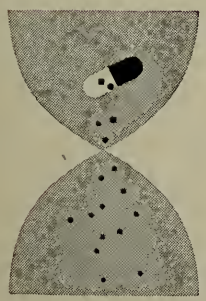

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1. Margolin, S., and Tislow, R.: Experimental and Clinical Efficacy of Trimeton and Chlor-Trimeton Maleate, Ann. Allergy 8:515, 1950.

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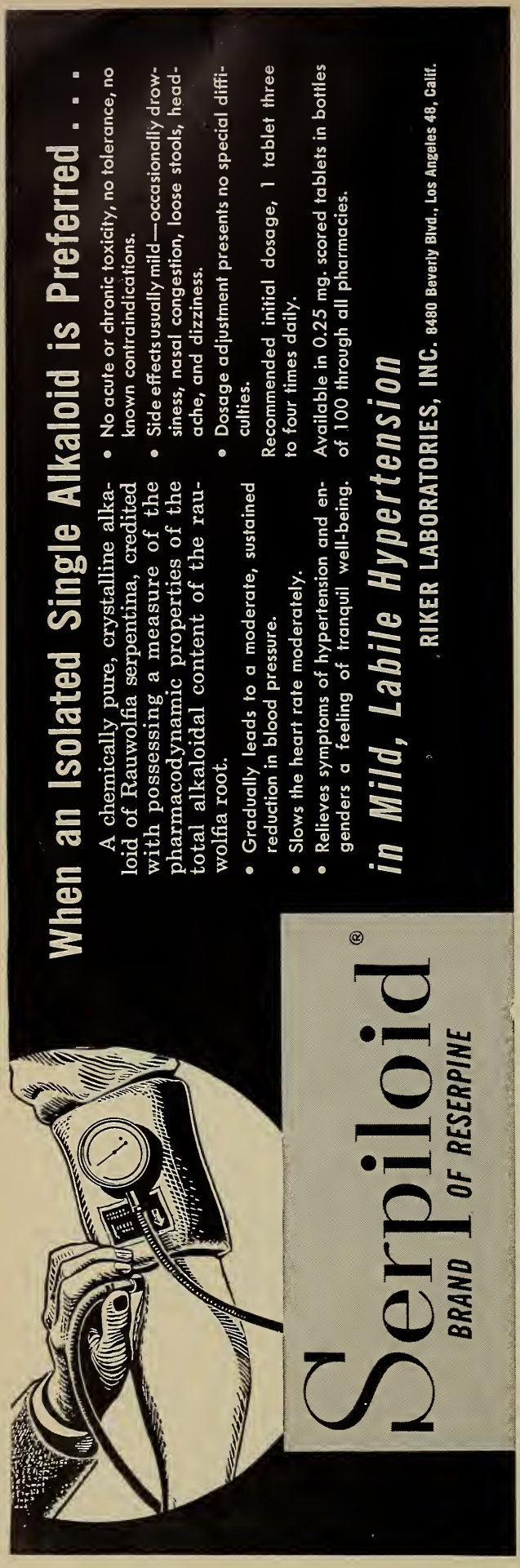

That "Spring Cold" May Really Be An Allergy

That "spring cold" you may be suffering from may not be a cold at all—it may be asthma or hay fever resulting from an allergy.

"If your complaint is sniffling and sneezing and a stuffy nose, there are about seven or eight million others like you," according to Dr. Samuel M. Feinberg, Chicago, chief of the allergy clinic, Northwestern University. "Most of the sneezers are seasonal hay fever victims, but almost a million of them have a chronic nasal allergy."

Any of a variety of things might cause a person's nose to be stuffy or runny out of season or give a non-seasonal asthma, Dr. Feinberg wrote in a recent issue of *Today's Health* magazine, published by the American Medical Association. These include pollen, house dust, feathers, animal hair, and food.

It is common for nose allergy and asthma to occur in the same people, and they tend to occur in members of the same family, Dr. Feinberg said, adding:

"Seasonal hay fever and asthma are as changeable as the color of the chameleon. When it is sunny, hot and windy, pollen production is at its height, and your suffering severe. When it's cloudy, cool and quiet, or when it rains, pollen is at low ebb and you may feel that your malady has been cured. In some people, rainy and cool weather will aggravate the symptoms, particularly asthma."

Pollen and molds are the commonest causes of hay fever and asthma, hence the diseases are often seasonal, Dr. Feinberg pointed out. The major cause of hay fever is ragweed, but it also may be caused by tumbleweed, fire bush, sage, hemp, pigweed, timothy, bluegrass and other grasses.

The type of allergy most often mistaken for a "spring cold" is that caused by the pollen of such trees as maple, elm, poplar, birch, ash, oak, and others whose pollen usually is prevalent in April and May. The molds that cause hay fever are those found on such grains as wheat, corn and oats, and on grasses.

If a person's allergy and exposure are moderate, he is in "allergic balance" and may have no symptoms, Dr. Feinberg stated. However, many things can upset this balance, including inert dusts such as street or chalk dust, chemical fumes, cold air, a cold, and various types of emotional upsets. He added that if allergy were not present in the first place, such secondary irritants would most likely have no effect.

Elimination of the irritating factor or a change of climate may effectively relieve asthma or hay fever in some cases, but others may require regular injections of solutions of allergenic substances to effect relief. Immediate temporary relief from the symptoms of hay fever or asthma may be obtained by the use of certain drugs, among which are cortisone and ACTH, Dr. Feinberg said.

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Disseminated Coccidioidomycosis

Treatment with Ethyl Vanillate—A Preliminary Report

MARSHALL J. FIESE, M.D., JEROME RADDING, M.D., STEPHEN CHEU, M.D., and OWEN K. STEINBACH, M.D., Fresno

• *Ethyl vanillate, previously reported to be useful in the treatment of disseminated histoplasmosis, was administered to eight patients with disseminated coccidioidomycosis.*

Therapeutically effective concentrations of ethyl vanillate were obtained in only three patients, but, in them, the disease was apparently arrested.

Failures occurred with patients who were too ill to tolerate the large amounts of ethyl vanillate required to attain a therapeutic concentration in the blood.

The principal difficulties of administering ethyl vanillate are (a) the large doses required and (b) the lack of a parenterally administrable form of the drug.

Ethyl vanillate, although not universally applicable, may be useful in selected cases of disseminated coccidioidomycosis and should be given further trial.

HERETOFORE there has been no satisfactory treatment of coccidioidomycosis. Fortunately, nothing but rest is necessary in most cases of the primary pulmonary form of the disease, but once it has become disseminated, coccidioidomycosis has been all but inaccessible to help. Older therapeutic agents, such as immunotransfusions, thymol, iodides, tartar emetic, gentian violet, sulfonamides, colloidal copper, vaccines, coccidioidin and roentgen irradiation are essentially useless.[20] Many of the newer drugs, such as penicillin,[14] streptomycin,[19] isoniazid and iproniazid,[23] protoanemonin,[9] stilbamidine[7] and dihydroxystilbamidine[22] have also been unsuccessful. Polymyxin B, aureomycin, chloramphenicol and neomycin inhibit *Coccidioides immitis* in vitro[2] but are of no use clinically. Cycloheximide (actidione) has been used in coccidioidal meningitis,[13] but its value is open to serious question. It inhibits *Coccidioides immitis* only in very high concentrations, being much more effective against *Cryptococcus neoformans* both in vitro[25] and in vivo.[3, 4, 26] As a matter of fact, because cycloheximide inhibits other fungi while allowing *Coccidioides immitis* to grow, it is used in a culture medium designed for specific isolation of *Coccidioides*. Only a few recently developed drugs appear to show promise in the treatment of disseminated coccidioidomycosis. Prodigiosin seems to have been helpful in several cases,[24] and nystatin (fungicidin), effective against *Coccidioides immitis* in vitro,[8, 11] and in experimental animals,[17] awaits adequate clinical trial.

In 1945 Pearl[18] described certain vanillic acid esters which are useful as food preservatives because of their fungicidal properties. McVickar[15] found ethyl vanillate to be remarkably effective in vitro against all the pathogenic fungi except *Cryptococcus neoformans* and *Candida albicans* at concentrations which are nontoxic to human beings. Of ten thera-

From the Medical Service, Veterans Administration Hospital, Fresno.

The ethyl vanillate and isobutyl vanillate used in this study were supplied through the courtesy of Dr. Harvey Blank of the Squibb Institute for Medical Research, New York.

peutic agents tested by Hansen and Beene,[12] only ethyl vanillate was fungicidal for *Histoplasma capsulatum* in concentrations safely attainable in man. In 1950 Christie[5, 6] reported the apparently successful use of ethyl vanillate against disseminated histoplasmosis, for which there was previously no effective treatment. Five of 12 treated patients with the progressive and usually fatal form of the disease lived and most of the patients who died were already moribund when treatment with the drug was begun. The results of other investigations have been similar.[10, 16, 27]

Christie's promising experience in the treatment of histoplasmosis and the demonstration of in vitro activity of ethyl vanillate against *Coccidioides immitis* have prompted several investigators to try the drug in the treatment of disseminated coccidioidomycosis. This report concerns the first eight cases of coccidioidomycosis so treated at this institution.

The Fresno Veterans Administration Hospital is located in the San Joaquin Valley of California, an area of high endemicity of coccidioidomycosis. In the past three years, 52 cases of coccidioidal infection severe enough to warrant hospitalization have been observed. When first seen by the authors, 41 patients had primary pulmonary coccidioidomycosis, one had a chronic coccidioidal granuloma of the lung, one had a chronic coccidioidal pulmonary cavity and nine had disseminated coccidioidomycosis. Dissemination later occurred in eight of the cases of primary pulmonary infection, making a total of 17 cases of disseminated coccidioidomycosis. In addition, 11 other primary infections were so severe that the complement fixation titer was in the "range of dissemination"—that is, 1 plus at dilution of 1:32 or higher[21]—although no extrapulmonary lesions could be identified. Five of the patients with the disseminated form of the disease were Caucasians, five were Filipinos, and seven were Negroes. In nine cases the patient died and all but one were examined postmortem.

As is well known, there are probably no great racial differences in susceptibility to the primary infection, but there is a striking difference in the reaction thereto. The infection is much more likely to be severe and to disseminate in Negroes and Filipinos than in Caucasians.

Twenty-seven of the 41 primary infections occurred in Caucasians, but in none of them did the disease disseminate, and in only six was the complement fixation titer above 1 in 16. Seven primary infections occurred in Negroes. In six of them high complement fixation titers developed, and in four the disease became disseminated. Seven primary infections occurred in Filipinos; dissemination followed in four, and all others had complement fixation titers in "the range of dissemination."

Of the eight patients with disseminated coccidioidomycosis who were treated with ethyl vanillate and who are reported upon herein, four were Negroes, two were Filipinos and two were Caucasians. The latter two had coccidioidal meningitis and were referred to the Fresno VA hospital from elsewhere. The authors had first seen all but one of the others during the primary phase of the disease.

The amount of ethyl vanillate necessary to treat even one patient is very large, and the drug was being produced on only a laboratory scale.* Consequently, not many patients could be treated.

At one period during this study, the supply of ethyl vanillate was temporarily exhausted. Isobutyl vanillate, a similar ester of vanillic acid, was substituted for a brief interval in three cases, but clinical data concerning it are too meager to interpret.

To facilitate discussion of the results of treatment with ethyl vanillate, the cases were divided into different groups on the basis of the concentration of vanillate which was attained in the blood. The cases are classified as follows: (1) Those in which the concentration of ethyl vanillate was significant and sustained, and (2) those in which the concentration of ethyl vanillate was neither significant nor sustained, because (a) the medication could not be taken or retained, or (b) the dose was inadequate.

CASE REPORTS

1. Cases in which the concentration of ethyl vanillate was significant and sustained.

Only three of the eight patients can be placed in this category. In two, an adequate concentration was sustained for a considerable period. In a third, the level, although sustained for several weeks, was probably less than optimal because the dose was somewhat small.

CASE 1. The patient was a 43-year-old Filipino farm laborer who had lived in Livingston in the San Joaquin Valley for one year. In August 1951 he first entered this hospital with coccidioidal pneumonia. Within three months abscesses appeared on the trunk and limbs, and he reentered in December 1951.

He was a thin, alert man. The lumbar spine was very tender. There were fluctuant swellings over the second lumbar vertebra, the right scapula, and the left second metacarpal bone. There was a draining ulcer, 3 x 4 cm. in diameter, on the right great toe.

The hemoglobin was 12.8 gm. per 100 cc., the sedimentation rate was 32 mm. in one hour, and leukocytes numbered 6,700 per cu. mm. with a normal differential. The complement fixation titer for coccidioidal infection was 3 plus at 1:128.† Roentgeno-

*Ethyl vanillate has since been released by the Food and Drug Administration, and is now marketed by E. R. Squibb and Sons, Inc.

†Facilities for the serologic tests were provided by the support of the Commission on Acute Respiratory Diseases of the Armed Forces Epidemiological Board at the School of Public Health, University of California, Berkeley.

graphic studies of the chest and bones showed an area of density in the left upper lobe, and areas of bone destruction in the proximal phalanx of the right big toe, the second left metacarpal bone, the spine of the second lumbar vertebra, and the left parietal bone of the skull. *Coccidioides immitis* was present in material aspirated from the swelling over the metacarpal bone. The fungus was sensitive to 40 mg. of ethyl vanillate per 100 cc., but was resistant to 20 mg. per 100 cc.

During March and April 1952 ethyl vanillate was administered in doses of 2.4 to 12 gm. per day. During this period the concentration of ethyl vanillate in the blood, determined by the method described by Christie,[6] was negligible, and new lesions continued to appear. In June 1952 administration of ethyl vanillate was resumed with somewhat larger doses. By the middle of July the patient was receiving 24 gm. of the drug daily. He began to feel better, and the lesions began to heal (see Chart 1). He took the capsules of ethyl vanillate with meals or with milk, experiencing no unpleasant symptoms.

When the dose was increased, eventually to 44 gm. daily, the blood level was usually well over 20 mg. per 100 cc. The lesions healed rapidly, the sedimentation rate was decreased to 3 mm. in one hour and the complement fixation titer fell remarkably. The body weight increased from 128 to 145 pounds.

Ethyl vanillate administration was stopped in February 1953 and the patient continued to do well, gaining weight and working. One lesion on the left little finger occasionally drained slightly.

Comment: Because of inexperience with ethyl vanillate, the dose was totally inadequate for the first four months. During the last seven months the dose was increasingly more adequate. Clinical improvement coincided precisely with the attainment of significant blood concentrations of ethyl vanillate.

Case 2. In November 1951, a 58-year-old Negro laborer who had lived at Dos Palos in the San Joa-

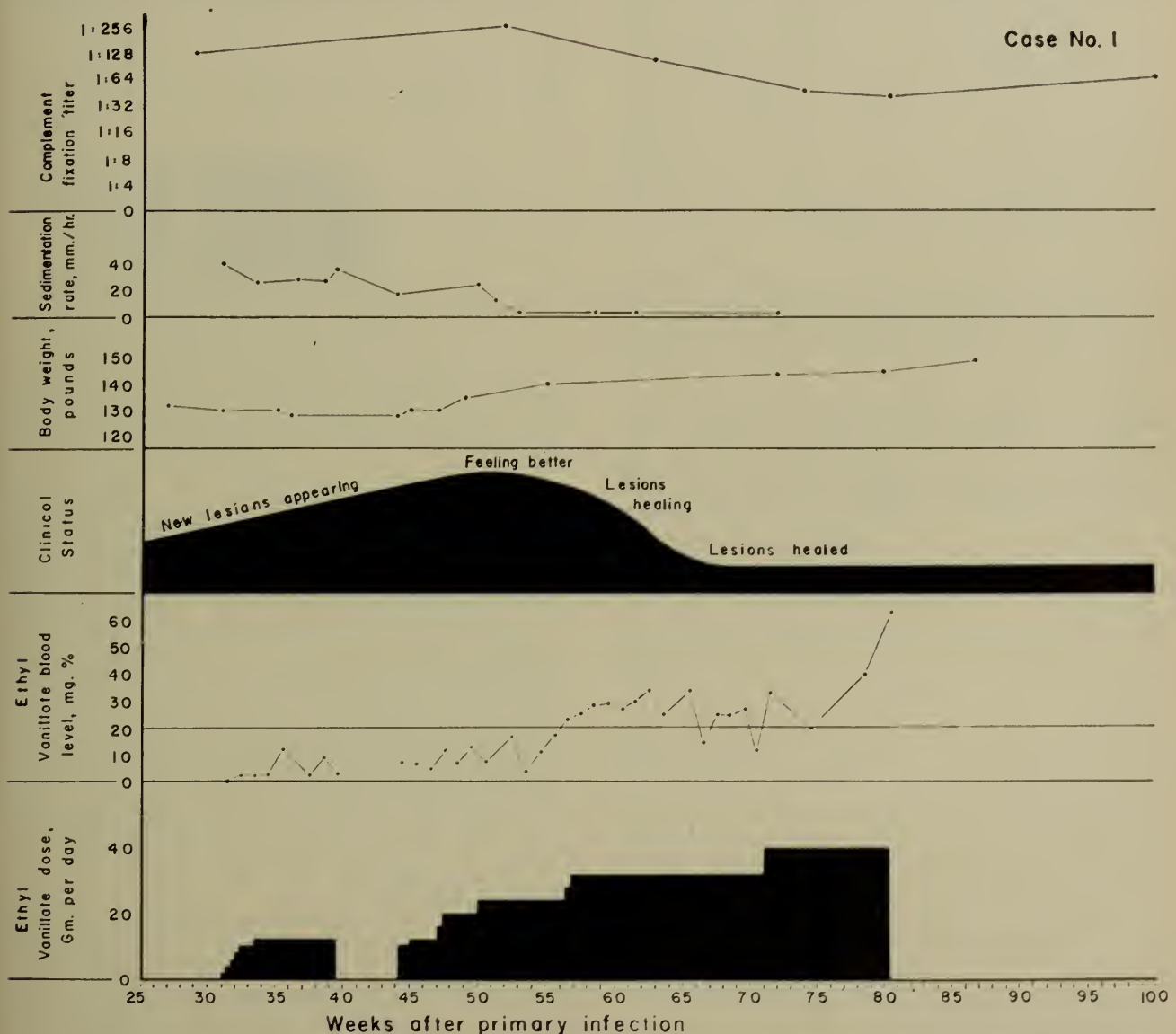

Chart 1.—Clinical course of a patient with disseminated coccidioidomycosis treated with ethyl vanillate. Small doses were ineffective, but improvement coincided with attainment of significant blood concentrations of ethyl vanillate by the administration of larger doses.

quin Valley for five years first entered this hospital with coccidioidal pneumonia. Four months later the left ring finger became painful and swollen, and soon draining ulcers appeared. Shortly before the patient reentered in October 1952, an abscess appeared on the back.

He was a fairly well nourished, lethargic, fatigable man. There was a draining ulcer just to the left of the 12th dorsal vertebra. The proximal phalanx of the left ring finger was greatly swollen and fluctuant, and there were draining ulcers about 1 cm. in diameter on both sides of the finger.

The hematocrit was 40 volumes per cent, the sedimentation rate 50 mm. in one hour, and the leukocytes 5,800 per cu. mm. with a normal differential. A roentgenogram of the chest showed a great amount of density extending outward from the left lung root. The complement fixation titer for coccidioidal infection was 1 plus at 1:256.

Ethyl vanillate was administered in doses of 32 to 44 gm. daily. Within three days the finger was less painful, the ulcers were beginning to heal, and cultures for *Coccidioides* were negative (see Chart 2). In two months the patient was strong enough to work. He could not be relied on to take medication regularly, however, so that the concentration of ethyl vanillate in the blood varied considerably. When isobutyl vanillate was substituted for ethyl vanillate, the patient complained of gastric irritation and took the medication even more irregularly.

After five months of therapy, the sedimentation rate and complement fixation titer were still elevated, and there was still occasional drainage from the lesion on the finger, but otherwise the patient appeared to be in good health.

Comment: Some patients with disseminated coccidioidomycosis are known to strike a balance with the disease. Victory over the infection is not complete, but a truce is reached in a relative symbiosis. Organisms are still harbored here and there, sinuses drain periodically, and the complement fixation titer remains high, but the patient gains weight, feels fairly well, and carries on relatively normally for a long time, up to a normal life span. It may be that ethyl vanillate enables certain patients to reach such a state of relative equilibrium, even if the infection is not completely extirpated.

Case 3. A 28-year-old Negro farm laborer who had lived near Fresno for a year was hospitalized at this institution from October 1952 to January 1953 with severe coccidioidal pneumonia. He returned in March 1953 because of the recurrence of fever, chills, and cough productive of large amounts of mucopurulent sputum. At that time he was prostrated, febrile, coughing and dyspneic. There were many moist rales over the upper chest on the left side and a friction rub at the left base.

The hematocrit was 45 volumes per cent, the sedimentation rate 24 mm. in one hour, and leukocytes numbered 26,650 per cu. mm.—83 per cent neutrophils, 15 per cent lymphocytes, 1 per cent monocytes and 1 per cent eosinophils. A roentgenogram of the

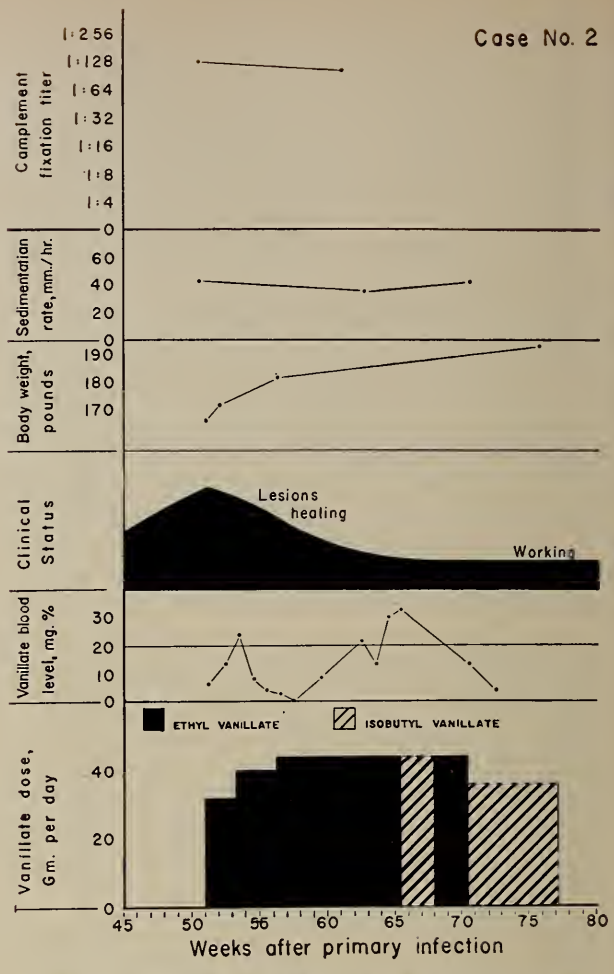

Chart 2.—Clinical course of a patient with disseminated coccidioidomycosis treated with ethyl and isobutyl vanillate. Adequate doses were administered from the first. Improvement began immediately, although the patients' cooperation was at times uncertain.

chest showed large areas of consolidation involving about two-thirds of the left lung from the base to the apex. *Coccidioides immitis* was cultured several times from the sputum. The complement fixation titer for coccidioidal infection was 4 plus at 1:32.

For two weeks the patient became progressively weaker. Isobutyl vanillate was then administered in doses of 20 to 36 gm. daily, to be replaced in three weeks by ethyl vanillate, 36 gm. daily. For a month the patient improved steadily. Fever disappeared, the cough regressed, appetite returned, and the body weight increased 10 pounds. Several sputum cultures were negative for *Coccidioides immitis*. A roentgenogram of the chest showed that almost all of the density had disappeared; only a little in the left lower lung field remained.

After a month of improvement a series of relapses occurred. The sputum increased in amount and became very foul. Pyogenic bacteria, but no fungi, were cultured from the sputum. During the second relapse a roentgenogram of the chest showed a great increase in density at the left base, with a cavity containing fluid. In July, left lower lobectomy was performed. The lobe contained two large cavities filled

with necrotic material and numerous old granulomatous lesions. The pathologist noted: "There was a remarkable paucity of *Coccidioides* spherules. Only two remnants of spherules were found after prolonged search. Both of these were found within the cytoplasm of giant cells." The immediate postoperative course was stormy, but thereafter the patient improved steadily.

After four months of therapy, the cephalin flocculation test reaction, originally normal, was 3 plus at 24 hours, and the total two-hour excretion of phenolsulphonphthalein was less than 25 per cent.

Comment: Evaluation of this case is difficult. The concentration of vanillate in the blood, at least at the instant that blood was drawn for determinations, was never within the desired therapeutic range. Nevertheless, initial improvement coincided with administration of isobutyl vanillate, and fungi were not obtained from the sputum thereafter. Furthermore, pathological findings at the time of operation suggested that the coccidioidal aspect of the pulmonary infection was regressing. The relapses seem to have been due to the appearance of pyogenic abscesses rather than to recrudescence of coccidioidomycosis.

II. Cases in which the concentration of ethyl vanillate was neither significant nor sustained:

A. Because the medication could not be taken or could not be retained.

Four of the patients were unable to take or to retain ethyl vanillate. Two of them had fulminating generalized coccidioidomycosis, and two had coccidioidal meningitis.

Case 4. A 54-year-old Filipino laborer who had lived in Delano in the San Joaquin Valley for six years entered this hospital in January 1952 with severe coccidioidal pneumonia of three weeks' duration. The infection rapidly became disseminated, and within three months the patient was moribund. Shortly before he died, attempts were made over a five-day period to administer ethyl vanillate, 2 to 4 gm. daily, but the patient refused to swallow almost all of the capsules and would not tolerate a stomach tube. Postmortem examination showed disseminated coccidioidal lesions in the right lower lung, the hilar lymph nodes, the spleen, and the meninges.

Comment: To all practical purposes, this man was not treated with ethyl vanillate. The case, however, emphasizes the difficulty of administering the drug to a seriously ill man.

Case 5. The patient was a 27-year-old Negro farm laborer who had lived in Madera in the San Joaquin Valley for six years. For six weeks he had had chills, fever, profuse night sweats, a cough productive of thick purulent sputum, aching in the chest, pain in the lower back, and pain and swelling of the right ankle. The body weight had decreased 17 pounds. Verrucous skin lesions appeared on the patient's face a week before he entered this hospital in May 1953.

Upon admittance he was observed to be thin, pale and weak. The cervical, axillary and inguinal lymph nodes were large and tender. Breath sounds were decreased at the base of the right lung. There was a verrucous skin lesion 5 cm. in diameter on the forehead and a smaller lesion on the left side of the upper lip.

The hematocrit was 36 volumes per cent and the sedimentation rate 53 mm. in one hour. Leukocytes numbered 18,300 per cu. mm.—67 per cent neutrophils, 15 per cent lymphocytes, and 18 per cent eosinophils. A roentgenogram of the chest showed that the mediastinum was wide, that the lung roots were heavy, and that there was increased density in the right lower lobe. Spherules of *Coccidioides immitis* were recovered from the sputum. The complement fixation titer for coccidioidal infection was maximal, being 4 plus at 1:256.

For a month attempts were made to administer ethyl vanillate. The patient tolerated the initial dose of 20 gm. per day if he took the medicine slowly, but as the dose increased he refused or vomited the medication more and more frequently. The concentration of ethyl vanillate in the blood was negligible. The verrucous skin lesions spread over the face, and subcutaneous abscesses appeared all over the body. The patient died in July 1953, 68 days after admission. Postmortem examination showed innumerable coccidioidal lesions throughout the soft tissues, bones, and viscera.

Comment: This case was the most disappointing of all. Although there was already widespread dissemination, the patient did not have meningitis, and it was hoped that he could tolerate the drug well enough to arrest the disease.

Case 6. A 40-year-old white farm laborer who had lived in Gustine in the San Joaquin Valley for seven years, had a cough and malaise and fever for several weeks in August 1952. Shortly before he entered this hospital in October 1952 he began having headaches and mental confusion.

At the time of admittance he was disoriented and drowsy. The neck was stiff and there were bilateral early papilledema and numerous small flame-shaped hemorrhages in the discs. The Babinski reaction was positive bilaterally.

The hemoglobin was 13.8 gm. per 100 cc. of blood, the sedimentation rate was 28 mm. in one hour, and leukocytes numbered 6,850 per cu. mm. with a normal differential of cells. A roentgenogram of the chest showed an increase in density at the left lung root radiating into the base. The spinal fluid contained 470 white cells per cu. mm. and 141 mg. of protein per 100 cc. The complement fixation titer for coccidioidal infection was 4 plus at 1:16, and the precipitin titer was 4 plus at 1:40.

Administration of ethyl vanillate was attempted for a month but, because of increasingly frequent vomiting, less and less of the medication was retained. The concentration of ethyl vanillate in the blood was usually negligible. For several days before the patient died in December 1952, the medication

was administered in olive oil by a stomach tube. Postmortem examination showed coccidioidal meningitis and mediastinitis.

Case 7. In October 1952, a 34-year-old white male truck driver who had lived at Riverdale in the San Joaquin Valley for five years had a mild upper respiratory infection for which he did not seek medical aid. A month later he had fever, headache, and signs of meningeal irritation. He entered this hospital in January 1953, after having had a convulsion.

He was well developed, well nourished and mentally confused. The neck was stiff, and Kernig's sign was present. The right pupil was larger than the left, and the right external rectus muscle was weak. There was bilateral papilledema.

The hemoglobin was 11.8 gm. per 100 cc. of blood and leukocytes numbered 12,000 per cu. mm.—69 per cent neutrophils, 26 per cent lymphocytes, 3 per cent monocytes and 2 per cent eosinophils. The spinal fluid pressure was 570 mm. of water and the fluid contained 564 cells per cu. mm., mostly lymphocytes, and 220 mg. of protein per 100 cc. The complement fixation titer for coccidioidal infection was 4 plus at 1:16 in the blood and 1 plus at 1:16 in the spinal fluid.

For a month the patient was given ethyl vanillate, 44 gm. daily, much of which he could not retain. The vanillate blood level was usually less than 20 mg. per 100 cc., and the highest spinal fluid level was 6 mg. per 100 cc. When isobutyl vanillate was substituted for ethyl vanillate, nausea and vomiting became more frequent, and the patient soon refused all medication. He died in July 1953, nine months after the initial infection (see Chart 3). Postmortem examination showed coccidioidal meningitis.

Comment: The concentration of ethyl vanillate in the spinal fluid was consistently much lower than that in the blood, a disparity which may in part account for the failure.

Isobutyl vanillate, as compared to ethyl vanillate, is more active in vitro against *Coccidioides immitis* and is less toxic to animals.[1] The isobutyl ester was used for short periods in three of the cases in the present series. In two (Cases 2 and 7), it appeared to be more irritating to the stomach than the ethyl ester. In a third (Case 3) it was well tolerated and appeared to be at least as effective as ethyl vanillate.

B. Because the dose was inadequate.

During the early months of experimental use of ethyl vanillate, the authors were unaware of the large doses which would be required to effect adequate concentration in the blood. Owing to fear of toxic effects of the drug, too little was given. Several patients previously described were treated before the authors became bold enough to give a really adequate dose (see Cases 1 and 4).

Case 8. A 22-year-old Negro farm laborer who had lived at Bakersfield and Tulare in the San Joaquin Valley for three years entered this hospital in October 1950 with severe coccidioidal pneumonia.

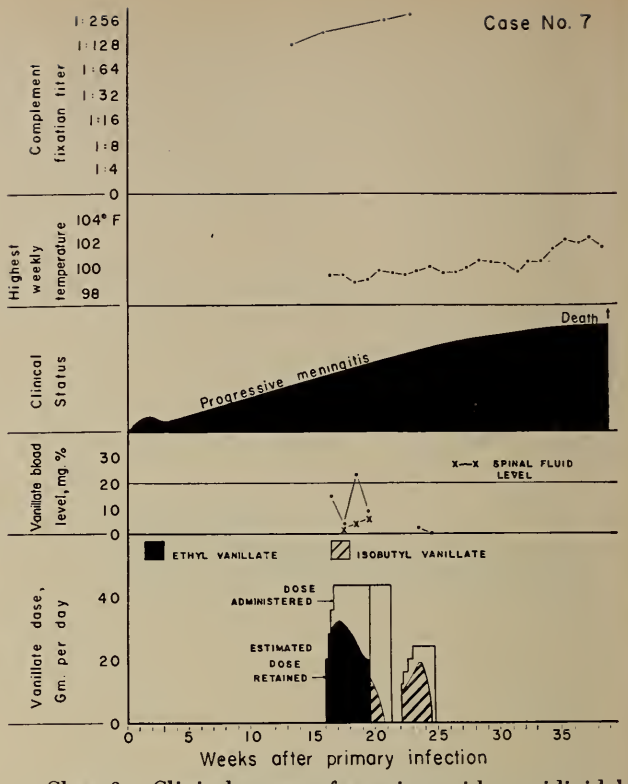

Chart 3.—Clinical course of a patient with coccidioidal meningitis treated with ethyl and isobutyl vanillate. Increasingly frequent vomiting made retention of the drug impossible, so that the progress of the disease was unaffected.

Within two months, coccidioidal skin lesions appeared on the face. The complement fixation titer for coccidioidal infection rose to a very high level—2 plus at 1:256. In the next year and a half the patient was weak and fatigable. In April 1952 he was readmitted because of the appearance of a coccidioidal abscess in a submandibular lymph node.

He was then thin and listless, with a verrucous skin lesion on the nose, and a large draining submandibular lymph node abscess. The skin of the legs was covered with small papular lesions, from which *Coccidioides immitis* was recovered.

Before therapy was started improvement began spontaneously. The skin lesions on the legs disappeared, and the discharge from the submandibular lymph node ceased. For two weeks ethyl vanillate was given in tiny doses, the largest being only 12 gm. per day, but the concentration of ethyl vanillate in the blood never exceeded 1 mg. per 100 cc.

DISCUSSION

This report includes all patients who received ethyl vanillate, no matter how little nor for how short a period. Neither those to whom too little was given nor those who were unable to take the drug are excluded. According to present criteria derived from the experience with the cases in the series here reported upon, several of the patients would not now be considered suitable candidates for therapy with ethyl vanillate. One was moribund and another had

spontaneous remission before therapy was started. These facts must be considered in interpretation of the results.

In retrospect, in only two of the patients was a really adequate concentration of ethyl vanillate maintained. It seems more than coincidental that these were the two patients who did best. Although neither of them seemed to be completely cured of the disease, both were reasonably well and were able to work. A third patient seemed to have been helped by ethyl vanillate, but evaluation of his case is difficult because the blood concentration of the drug was somewhat less than optimal and because the coccidioidal disease was complicated by several large pyogenic pulmonary abscesses.

To all practical purposes the other five patients were not treated with ethyl vanillate, since a significant blood concentration of the drug was not maintained. At first, this failure to obtain a therapeutic level occurred simply because the dose of the drug was inadequate. More serious were the failures which occurred in patients who were too ill to take or to retain the drug. Even though a drug be relatively effective and nontoxic, it is hardly fully useful if it must be taken in a form that a seriously ill patient cannot tolerate.

As far as administration of ethyl vanillate is concerned, its chief disadvantages are (a) the large dose required, and (b) the lack of a parenterally administered form of the drug. Because it is highly insoluble in water and is locally irritating, ethyl vanillate has been given only by mouth. In order to maintain a therapeutically effective concentration in the body, the patient must take from 32 to 48 gm. daily. To get 44 gm. per day, for instance, a patient must swallow 88 large capsules—22 every six hours. This is possible only for a patient who is alert, cooperative and free of nausea and vomiting. Unfortunately patients with fulminating coccidioidomycosis are usually too ill to comprehend the necessity of taking such a prodigious dose or too weak to do it if they do understand. Coccidioidal meningitis furthermore causes frequent vomiting, so that even food cannot be retained. Even if the drug is swallowed it is usually vomited forthwith. If he is able to eat, a patient can avoid gastric irritation by taking the drug with meals or with a glass of milk, but this strategem is of no help to a seriously ill patient who cannot even retain food. Although Christie was able to administer the drug to moribund children by means of a stomach tube, this method is often unsatisfactory in the case of a vigorously uncooperative adult.

The toxicity of ethyl vanillate is not high, considering the large amounts that must be administered. When the blood concentration is between 20 and 40 mg. per 100 cc., the concentration lethal to *Coccidioides immitis*, there are usually no untoward effects. A concentration higher than 50 mg. per 100 cc. is said to be accompanied by an abrupt increase in toxic manifestations. Christie reported that in experimental animals lethal doses cause pathological changes in the gastrointestinal mucosa, pulmonary alveoli, renal glomeruli and tubules, myocardium, and liver.[6] He further noted hepatic cell necrosis and degeneration of the proximal renal tubules in a fatal case of human histoplasmosis in which ethyl vanillate had been used. One of the patients in the present series (Case 3) showed depression of liver and kidney functions during vanillate therapy. Occasionally administration of ethyl vanillate has had to be terminated because of hepatotoxicity.[22]

At present, ethyl vanillate seems to be useful only in certain types of disseminated coccidioidomycosis, but it may point the way to a better means of therapy. At least it demonstrates that the disease is not necessarily incurable. Patients who are most likely to be helped by ethyl vanillate are those with relatively early progressive lesions of the skin, subcutaneous tissue, bones, or viscera, who are weak and losing weight, and who have a high erythrocyte sedimentation rate and an increasing complement fixation titer, but who are still in fairly good general condition, mentally able to cooperate and physically able to eat and retain food. Less likely to be helped are those with coccidioidal meningitis or with widespread dissemination, who are too ill to cooperate.

Also unlikely to be helped are those who are withstanding the infection fairly well by themselves, in whom spontaneous remission or cure is possible. It would be difficult to demonstrate that the use of ethyl vanillate made their recovery faster or more complete. One of the patients in this series (Case 8) was improving before the drug was administered and has continued to do well. No benefit can be attributed to the tiny dose of ethyl vanillate that he received.

As a matter of fact, since spontaneous remissions do occur, it is impossible to be certain that the improvement in Cases 1, 2, and 3 was owing to treatment with ethyl vanillate. However, the coincidence of improvement with the attainment of an adequate blood concentration strongly suggests that ethyl vanillate was responsible.

CONCLUSIONS

An adequate evaluation of the place of ethyl vanillate in the treatment of disseminated coccidioidomycosis is obviously impossible on the basis of the small series of cases here reported upon. Nevertheless, certain tentative conclusions seem justified.

1. Ethyl vanillate inhibits *Coccidioides immitis* both in vitro and in vivo.

2. Therapeutic concentrations of ethyl vanillate usually are relatively nontoxic, even when given over a long period of time, although the drug is locally irritating to the empty stomach. Occasionally liver and kidney functions are depressed.

3. If therapeutic concentrations can be maintained, ethyl vanillate is useful in the treatment of disseminated coccidioidomycosis, and may be curative.

4. Therapeutic concentrations are, however, obtained only with considerable difficulty, because of the large dose of ethyl vanillate required and because of the necessity of giving it by mouth.

5. The difficulty of administering ethyl vanillate makes it practically impossible to attain a constant therapeutically effective concentration in the patients who need it most—that is, those with coccidioidal meningitis or with fulminating generalized coccidioidomycosis.

6. Although ethyl vanillate is not in general the answer to the treatment of disseminated coccidioidomycosis, it is a worthwhile therapeutic agent which may be curative in selected cases of the disease.

ADDENDUM

In the past nine months, four more patients with disseminated coccidioidomycosis have been treated with ethyl vanillate. A Filipino and a Negro male with very early dissemination, as evidenced by recrudescence of fever and high complement fixation titers for coccidioidal infection, were apparently cured. A third patient, a Filipino with a chronic deforming coccidioidal granuloma of the left hand and wrist of many years' duration, is very much improved; at the time of this writing, extensive sinuses and ulcers have all closed for the first time in several years. A fourth patient, a Negro male with fulminating generalized coccidioidomycosis, was moribund when first seen by the authors; a brief period of therapy was unavailing.

The patients reported upon in Cases 1, 2, and 3 are also doing well. The first patient continues to work and gain weight; the blood sedimentation rate is normal and the complement fixation for coccidioidal infection has fallen to 1:32. The patient reported upon in Case 2, who took ethyl vanillate irregularly and in uncertain amounts, still feels and looks well, but the sedimentation rate and complement fixation titer are still elevated and the lesion on the finger still drains occasionally. The patient reported upon in Case 3 was treated with ethyl vanillate, 48 gm. daily, for five months after the paper was written. He rapidly regained weight and strength. The sedimentation rate fell to 6 mm. in one hour and roentgenograms showed the chest to be clear. The complement fixation titer declined from 1:256 to 1:32. The results of kidney and liver function tests returned to normal. It appears that he is cured.

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Esophagitis, Peptic Ulcer and Early Stricture

Non-Surgical Management

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• In the management of esophagitis, peptic ulcer and early stricture, a basic medical program, including correction of dietary abuse, administration of antispasmodics and antacids, and treatment of existing oral infections, should be started promptly. Elevation of the head of the bed approximately six to eight inches helps to prevent acid regurgitation from the stomach, especially at night. In cases of early organic stricture of the lower esophageal segment, gentle, gradual and frequent dilatation of the esophagus may prove helpful. The dilatation should be carried out gradually over a period of weeks. One of the methods for this procedure is the use of bougies graduating in size. By following such a program of medical management and gentle dilatation until the disease entity remains quiescent and stationary, satisfactory results are obtained in a majority of cases and radical (and often disappointing) surgical procedures can be avoided.

AS RECENTLY as ten or fifteen years ago esophagitis, peptic ulcer and early stricture were very poorly understood and rarely diagnosed. Today the following points are pretty generally accepted:

1. Congenital short esophagus as such may be considered a very rare condition.

2. True peptic ulcers of the esophagus arising from an islet of ectopic gastric mucosa are also probably very rare and of little clinical significance.

3. People having paraesophageal hiatal hernias do not have associated esophagitis.

4. Esophagitis or peptic ulceration is often associated with sliding hiatal hernias. Allison observed 136 cases of esophagitis in association with 176 observed sliding hernias.

Much has been written as to the various factors that may play a role in producing terminal esophagitis and the allied ulcers in this region. It is the author's belief that these factors may vary considerably from case to case as to their degree of importance but that one or more is undoubtedly present in each instance. Allison and others have suggested that both intrinsic and extrinsic factors play a part in departures from physiologic conditions in the cardia. Incompetency of the gastroesophageal junction is the end result and probably the outcome of a variable alteration of the intrinsic and extrinsic factors responsible for normal continence of the cardia.

With cardiac incompetence, abnormal gastric regurgitation occurs. In many instances this would appear to be sufficient to bring about the conditions under discussion. Additional factors may at times, however, play an etiological role, among them excessive ingestion of alcohol (with associated vitamin and nutritional deficiency), oral infections, and gastrointestinal disorders such as peptic ulcer, gallbladder disease and colitis. Local trauma may be an important factor in the rare cases in which esophagitis develops following the use of a postoperative intranasal tube. Advanced cardiospasm or cardiac obstruction may be a cause, the inflammation in this instance being due to stagnation of food and saliva proximal to the obstruction and not to gastric regurgitation. The condition is readily relieved when the obstruction is overcome, and in this sense it differs from esophagitis from other causes.

Sometimes esophagitis occurs as a sequel or complication of surgical procedures on the lower esophagus such as various plastic procedures and small local cardiac resections. The residual feature that causes esophagitis is an incompetent gastroesophageal junction. Barrett and others have stressed these complications and have warned against indiscriminate use of plastic procedures at the cardia. As a result the Heller procedure is being used in some instances for cardiospasm, in the hope that the late complications of the other plastic procedures may be avoided. How effective this precaution will be is not yet known.

Diagnosis depends upon carefully taken history, radiologic examination of the esophagus and cardiac end of the stomach, and esophagoscopy. Examination of tissue excised during esophagoscopy and of mucus removed by swab may be helpful although not infallible. Possibly there will always be a small

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proportion of cases in which diagnosis is not made until surgical exploration is carried out.

It should be emphasized that the conditions under discussion pass through phases and that some symptoms may be prominent in one case and hardly noticeable in another, depending on the phase of the existing lesion at the time examination is carried out.

When referring a patient for x-ray examination, the clinician should tell the radiologist the nature of the symptoms so that he may look especially for signs of cardiac incompetency and evidence of sliding hernia and make careful observation of the lower esophageal segment. The esophagus may appear straighter and shorter than normal. The lower esophageal segment may appear irregular and narrow. Ordinarily, there is no evidence of a shelf and as a rule there is very little proximal dilation. Occasionally an ulcer crater may be seen or suspected. Esophagoscopy is definitely indicated in these cases both for diagnostic and therapeutic purposes. The findings will vary with the stage of the disease. In the early stage, a discrete ulcer with local inflammation may be noted, or diffuse inflammatory reaction, with or without ulceration. Spasm and/or stenosis may be present, whether they are or not depending on the stage. In some instances the cardia may be so incompetent that the tip of the esophagoscope can be passed easily into the stomach. As these conditions tend to shorten and straighten the esophagus, technically it is easier to view the cardia than in the normal case, unless, of course, inflammation, spasm and/or stenosis stops the advance of the instrument.

Smears and tissue for biopsy should be taken, but it must be borne in mind that neoplasm may be associated with inflammation and spasm. Occasionally observation of inflammatory reaction in the specimen may cause the presence of a tumor to be overlooked unless the possibility is kept in mind.

Successful medical management of these lesions often taxes the ingenuity of the attending physician and the forebearance of the patient.

In early cases a carefully planned medical regimen will ordinarily afford satisfactory clinical relief. Should it not do so after thorough trial, then, the author believes, Allison's operation to restore the normal relationship of the cardia and the diaphragm should be performed. One must bear in mind this operation will probably give satisfactory results in early cases in which no stenosis or foreshortening of the esophagus has occurred. The medical regimen includes attention to oral hygiene, a modified, bland diet of the Sippy type, abstinence from alcohol, adequate vitamin intake, prescription of antacids and antispasmodics, elevation of the head of the bed (approximately eight inches) and, if secondary infection appears to be playing a role, administration of antibiotics orally and parenterally. For oral use the author prescribes 0.5 gm. of streptomycin in 5 cc. of saline solution to be taken two to four times daily, by sipping, for a few days. Should spasm, and/or early stenosis be troublesome, careful bougienage is carried out even in the relatively early cases. The procedure must be done gently and very gradually.

In the more chronic cases, where stenosis with associated spasm plays a more prominent role, in addition to the medical regimen a carefully planned regimen of bougienage must be outlined and carried out. Great care must be taken not to create false passages or cause rupture. In most cases success depends upon the complete cooperation of the patient, the exercise of a great deal of patience by the physician and, finally, extending the treatment over a period of months and at times years.

The author has used various kinds of dilators: Plummer's olive-tip, over a string, French woven silk bougies of various varieties, and the Einhorn dilator. The first is probably the safest but the string, which must be left in for some time, may cause some local irritation. If the course it must traverse is known, the author often uses the French woven silk bougies, at first under direct vision and later indirectly. In case of doubt, however, the Einhorn dilator is often used. It is passed into the stomach under fluoroscopic visualization, the bag is then dilated to the desired size in the stomach, and the instrument is removed with the bag dilated. The procedure is repeated every few days, each time with the bag slightly increased in size. As with other inflammatory strictures, bougienage must be kept up for a long time, but the intervals between stretching may be lengthened as progress is made.

The measures described afford satisfactory relief to the majority of patients. Sometimes, however, it may be deemed advisable to repair a sliding hernia with forward transplantation of the esophagus by a procedure similar to that described by Effler and others. It must be borne in mind, however, that in the presence of stenosis (not spasm alone) supplemental bougienage may be necessary.

In a few cases, due to uncertainty of diagnosis or because of repeated hemorrhage or inability to establish a satisfactory regimen of bougienage, resection may be indicated. What surgical procedure (or procedures) is best suited for cases of that kind and for those arising as a result of previous surgical operations, has not yet been determined. No one procedure has been uniformly satisfactory. Allison recommended esophagojejunostomy. Others have recommended subtotal gastric resection in which a small pyloric pouch is left. A few surgeons have resected the lesion with the entire stomach and used the cecum or segment of transverse colon as a gastric pouch. Local resection with pyloroplasty and resection with vagotomy and posterior gastroenterostomy

are also being done. These procedures cannot be properly evaluated as yet, for the number of cases is too small and the time elapsed since operation too short.

It is probable that with a better understanding of esophagitis and associated lesions of the distal esophagus, cases in which very radical operation is needed will remain relatively few in number.

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IN VIEWING THE VA MEDICAL PROGRAM . . .

what we are talking about...

1. Lack of moral or legal justification in providing federal medical care for ALL veterans
2. Effect of the VA program on civilian medical training programs
3. Current and eventual effects of VA program on civilian health standards
4. Competition for health personnel and patients
5. Unsound economics of overlapping federal medical services
6. Expanding tax-burden
7. Veterans' attitude toward VA medical program

These seven points are the conclusions of a careful analysis by the medical profession of the current VA medical program. (1) Veterans with no service-incurred disability should assume responsibility for their own medical care on the same basis as other citizens. (2) Medical schools and hospitals are hard pressed to train enough medical personnel for the benefit of all as long as the federal government siphons off such personnel from civilian programs. This VA practice has caused a duplication of hospital facilities and an unwarranted dispersion of health personnel. (3) The VA is creating an "artificial" shortage of medical personnel at the expense of civilian health programs. (4) Government has placed itself in competition with civilian medical programs, both for personnel and patients, making it increasingly difficult to operate civilian hospitals efficiently and economically. (5) Although the federal government is spending millions of dollars under the Hill-Burton act in civilian hospital construction, these hospitals are hard pressed to operate at reasonable cost while in direct competition with hospitals **wholly** supported by the federal government. (6) The medical profession asks whether a program providing "free" medical care to veterans with no service-incurred disabilities is a justified burden to impose on the taxpayers of this country. (7) Physicians do not believe that a veteran who served his country wishes to be the recipient of a federal "handout" at the expense of his fellow citizen-taxpayers.

The Esophagus in Radiologic Problems

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• *Examination of the esophagus must go considerably beyond observation of "a barium swallow"; it must include a thorough study of the hypopharynx, the cervical esophagus and the thoracic esophagus. Dysphagia, which is almost always the presenting complaint, may be due to a number of lesions originating outside the esophagus and thus cause no sign of mucous membrane destruction or of filling defect.*

DYSPHAGIA is the one predominant symptom which ordinarily first suggests the possibility of cancer of the esophagus. It is the initial symptom in most cases. Difficulty in swallowing may also be caused by lesions of the neck, mediastinum and the brain stem. This presentation deals with radiologic aspects of some of these not infrequently overlooked lesions.

Barium examination should be preceded by a careful fluoroscopic examination of the neck and chest with films as indicated. The act of deglutition, as well as the morphologic features of the soft tissues, should be observed. The vocal cords and laryngeal ventricles should be observed both while at rest and during phonation.

The first swallow of barium should be watched as it passes through the esophagus into the stomach to rule out gross obstruction. In a study of the esophagus, attention should be given to the base of the tongue, hypopharynx and extrinsic laryngeal structures. Observations must be directed to physiologic disturbances as well as to the form and shape of these structures. The action of the epiglottis can be observed as the tip turns over to form a lid to protect the larynx, at the same time that it directs the bolus of barium into the lateral channels and pyriform recesses. The surface of the base of the tongue, the valleculae, epiglottis, pyriform recesses and postpharyngeal wall can be visualized by coating them with contrast substances. Observations and film exposures should be made with complete filling and with mucosal relief of the hypopharynx and upper esophagus as well as the thoracic esophagus. The most difficult area to observe and record is at the junction of the hypopharynx and cervical esophagus. Small tumors of the postcricoid area are best demonstrated by the mucosal relief study. Tumors of the arytenoid region are best detected by the asymmetrical filling or defect of the opaque column due to the mass encroaching on the aryepiglottic folds or pyriform recess.

The *vallecular sign* in dysphagia is the abnormal retention or failure of symmetrical filling of the valleculae and pyriform recesses. In lesions of the central nervous system the pyriform recesses tend to balloon out as a result of interference with the constrictor muscles of the pharynx as in bulbar or pseudobulbar palsy. There is also limitation or absence of upward movement of the larynx during the act of swallowing. Regurgitation of fluid through the nose or spilling it over into the larynx are the result of paralysis of the soft palate or epiglottis. The vallecular sign may also be the first clue to attract attention to some other abnormality such as cancer of the base of the tongue, hypopharynx, extrinsic larynx, mediastinal tumor, an anomaly of the aorta or great vessels or cancer of the esophagogastric area.

Dysphagia associated with fatigue on repeated attempts at swallowing will afford a clue to the diagnosis of myasthenia gravis.

Dysphagia without hoarseness may result from an injury or stretch of a recurrent laryngeal nerve, as after a thyroidectomy, or in the presence of an aneurysm or mediastinal neoplasm. Many patients have more difficulty with liquids than with solids. Hence the need to examine with very thin as well as thick barium mixtures.

In hysterical or functional dysphagia (Plummer-Vinson syndrome) there are mucous membrane changes in the mouth, hypochromic anemia and an inability to swallow solid food. There is disagreement as to whether the changes in the mucous membrane of the mouth and esophagus and the anemia are responsible for the difficulty in swallowing, or whether as a result of the dysphagia there is inadequate food intake which results in the anemia and avitaminosis. There is also disagreement as to the presence of a partial web or partition at the level of the cricoid, but the author has demonstrated it occasionally and believes it to be the cause of the dysphagia. In this condition the findings are those of a disturbance of deglutition and not of stenosis

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with prestenotic regurgitation. This slight change may also be a very early manifestation of neoplastic disease. It is well to remember that this area at the entrance to the esophagus is also difficult for an endoscopist to observe. The passing of an esophagoscope may greatly relieve the symptoms and even if no positive findings are noted it is well to recommend follow-up examinations.

Deviations from the normal alignment of the opaque column in the esophagus should be searched for. Thyroid, parathyroid, and lymph node masses in the neck may, if small, cause only slight deviations and search for them should be made with the patient in the true posteroanterior and lateral projections. Intrathoracic thyroid masses, mediastinal tumors and anomalies of the aorta and great vessels also cause deviation or displacement of the barium-filled esophagus, and true posteroanterior and lateral projection is necessary for evaluation of them.

Dysphagia and unproductive cough together should suggest mediastinal invasion by a neoplastic process even though the lungs appear clear and the mucous membrane of the esophagus appears normal. The symptoms are produced by the fixation of the trachea, major bronchi and esophagus by the mediastinal lymph nodes. With the patient in the Trendelenburg position and drinking barium rapidly, one can observe the rigid, tube-like appearance of the esophagus with loss of normal distensibility.

Vague difficulty in swallowing with equally vague substernal distress should lead to search for evidence of vascular rings or for anomalous origin of one of the great vessels. These conditions, which come readily to mind when examining children, since surgical correction is so gratifying, should be given consideration in adult patients also. Mild variations of these anomalies in adults may not be detected unless searched for specifically. Surgical correction may not be indicated, but it is gratifying to be able to explain the symptoms on an organic rather than a functional basis.

ILLUSTRATIVE CASE REPORTS

The following brief reports of cases will help to illustrate some of these abnormal findings.

CASE 1: A 58-year-old man had difficulty in swallowing for four months. The act of swallowing could not be carried out normally and the larynx did not become elevated to the usual extent during the act of deglutition. The chest appeared normal. Barium studies (Figure 1) showed retention of the barium in the valleculae and abnormal distention of the pyriform recesses and hypopharynx. There was no spill-over of the barium into the larynx. The cervical and thoracic portions of the esophagus appeared normal. Diagnosis: Paralysis of the constrictor muscles of the pharynx due to a lesion of the brain stem.

Figure 1 (Case 1)—Retention of barium in valleculae, abnormal distention of pyriform recesses, and hypopharynx.

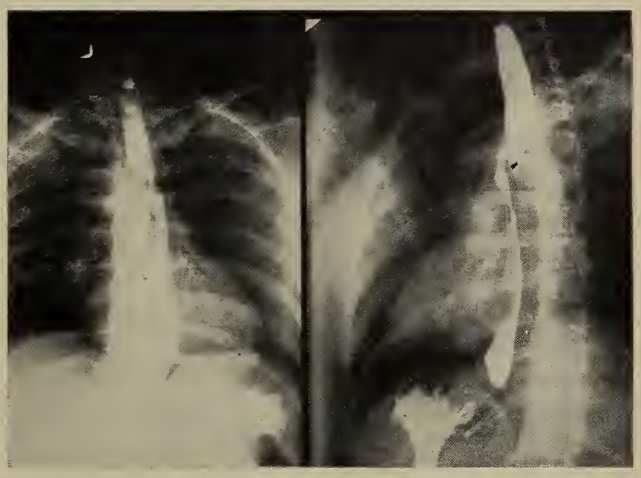


Figure 2 (Case 2)—Right-sided aorta with thoracic aorta ascending on right.

CASE 2: The patient was a 40-year-old woman who, in addition to symptoms suggesting a peptic ulcer, had vague complaints of difficulty "all my life" in swallowing and substernal distress while eating. Several previous examinations had been reported as showing no abnormality or as showing right-sided aorta. A study of the esophagus at the start of the gastrointestinal examination revealed a right-sided aorta with the thoracic aorta descending on the right (Figure 2). A deformity of the esophagus was produced by the left subclavian artery's originating from the arch or upper thoracic aorta and then crossing behind the esophagus to the left side of the neck. Diagnosis: Right aortic arch and descending thoracic aorta with deformity of the esophagus by abnormal course of the left subclavian artery.

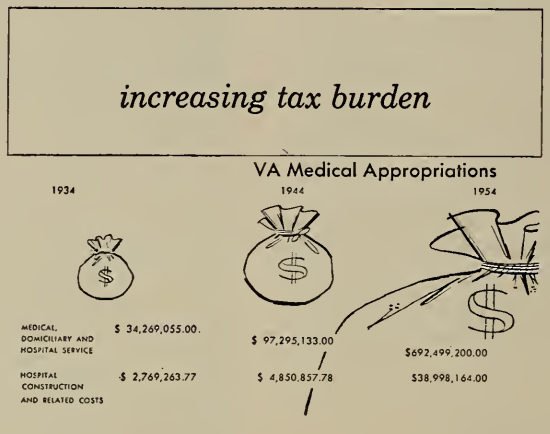
CASE 3: A 71-year-old man complained of difficulty in swallowing of a few weeks' duration, with occasional "choking spells" while eating. An earlier diagnosis was made of a carcinoma of the esophagus with mediastinal invasion and esophageal tracheal fistula because barium appeared at the bifurcation of the trachea. The fluoroscopic examination and film

study began in the cervical esophagus. Upon further examination the following day, a study of the hypopharynx showed a mass involving the extrinsic larynx, obliteration of the right pyriform recess and subglottic extension with spill-over into the larynx, the barium then passing to the level of the root of the lungs. The cervical and thoracic portions of the esophagus were normal. The diagnosis was carcinoma of the right arytenoid and extrinsic larynx. Biopsy of the lesion showed it to be Grade II squamous cell carcinoma.

Case 4: A 68-year-old man gave a history of prostatic carcinoma in 1943, and right renal carcinoma in 1949, both treated surgically. In January, 1951, a small mass developed at the right hilum. Upon examination of tissue removed through a bronchoscope, oat cell carcinoma was diagnosed. Roentgen therapy was given and the mass disappeared. In January, 1952, dysphagia developed. No evidence of the previous mass was seen in examinations of the chest. In a study of the esophagus, fixation and invasion from the mediastinum were noted. Tissue removed from the esophagus was histologically the same as that removed from the bronchus earlier. X-ray therapy was given and the symptoms subsided. The patient received 2,000 roentgens to each of two ports and 1,080 roentgens to each of two ports, measured in air, using a Thoreus filter at 55 cm. target skin distance. A barium study seven weeks later showed no evidence of invasion of the esophagus but there was mediastinal fixation. The lumen of the esophagus appeared normal. At autopsy seven months later, generalized carcinomatosis from both the prostatic and the pulmonary carcinoma was noted. The mediastinum showed extensive invasion with involvement of the wall of the esophagus but no diminution of the lumen of the esophagus.

Samuel Merritt Hospital.

In Viewing the VA Medical Program . . .



In twenty years, the cost of the VA medical program to U. S. taxpayers has increased 1,875%. Yet only 15% of the patients treated in VA hospitals are veterans with disabilities incurred while in uniform. The VA medical program is now second in size and expense only to the nation-wide system of socialized medicine in Great Britain.

Injuries and Wounds of the Esophagus

A Classification

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• *A new working classification of esophageal injuries and their complications is presented. The immediate recognition of perforations and ruptures is of prime importance. In some cases the rents heal with conservative therapy. It is emphasized, however, that early surgical exposure and direct repair will result nearly always in uncomplicated cure without the development of prolonged, costly, debilitating and sometimes fatal complications.*

No portion of the gullet is entirely protected from the possibility of wounding or injury. Since there are many types of injuries a classification should be helpful.[6, 23]

I. Extraluminal causes of injury.
   (A) Penetrating and perforating wounds; stabbing.
   (B) Externally applied blunt pressure to chest or abdomen.
   (C) Operative accidents.
      1. Suture or tear (as in repair of diaphragmatic hernia). –2–*
      2. Unnoted trauma to muscular wall; compromise of blood supply; subsequent infection.[27]

II. Intraluminal causes of injury.
   (A) Intrinsic (force from within the body).
      1. Complete traumatic rupture.
         (a) Postemetic. –3–
         (b) Other causes of increased intraluminal pressure.
      2. Incomplete tear from vomiting.
      3. "Spontaneous" rupture.
   (B) Extrinsic (force from outside the body).
      1. Instrumental perforation.
         (a) Esophagoscope or gastroscope. –9–
         (b) Dilatation: Scopes, bougies, olives. –6–
         (c) Biopsy.
      2. Perforation from foreign bodies.
         (a) Sharp-edged: Bones, dentures, glass. –8–
         (b) Impaction: Delayed removal and impaired blood supply. –1–
      3. Ingestion of caustics or acids.
         (a) First, second, third degree burns. –1–, (1)
      4. Perforation from air pressure hose.[31]

III. Later complications of injuries and wounds.
   (A) Abscess: Acute; chronic. (9)
   (B) Fistulae.
      1. Esophagotracheal.
      2. Esophagopleural with or without empyema. (7)
      3. Esophagocutaneous. (1)
   (C) Stricture.
      1. Localized. –1–
      2. Multiple or generalized. (2)
   (D) Diverticulum? (2)

SIGNS AND SYMPTOMS

The paucity of reported war wounds of the esophagus probably means that most soldiers are killed in action because of fatal damage to neighboring vital structures.[38] Surgeons of the Second Auxiliary Surgical Group[12] reported only seven esophageal wounds in first priority operations on 5,421 patients with major thoracic and abdominal wounds. Kay[20] saw 38 patients with esophageal injuries in a hospital center in this country and treated a number of later complications.

Severe external blows to the chest and/or abdomen have resulted in esophageal rupture,[1, 2, 16, 23, 39] at times resulting in tracheoesophageal fistula.

Rarely, the esophagus may be injured during operations on nearby structures (tears during mobilization; accidental perforation of the lumen from heavy sutures; compromise of blood supply). In consultations the author has observed two cases of early postoperative perforation. Muller[27] recently described the delayed appearance of esophageal fistulae from surgical trauma.

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*These arabic figures within the dashes represent the distribution of the 31 patients whose care was personally supervised by us (P.C.S. and David J. Dugan), or who were admitted on our County Hospital Service. When in parenthesis, ( ), the figures represent additional injuries in patients *primarily* classified in another category. Sixteen of these cases have been reported previously in detail.[10]

Traumatic or postemetic rupture (so-called spontaneous) has been well summarized in recent papers.[4, 23, 35] The term "spontaneous" would seem to be a misnomer in most instances although there are unquestioned examples in the literature. Frequently, in cases in which there was no vomiting, either moderate physical activity or an increase in the intraesophageal pressure was noted.[29]

From whatever cause, rupture of a previously normal esophagus is one of the most catastrophic of all visceral accidents. Typically, there is vomiting followed by severe epigastric and lower substernal pain, often unrelieved by morphine. Constitutional collapse ensues shortly. Dyspnea and cyanosis draw attention to the chest. The development of a nasal twang to the voice means early mediastinal emphysema; cervical crepitation follows shortly. In x-ray examination a flat film of the abdomen should include the cardiac shadow and such a film will show air in the mediastinum; a swallow of Lipiodol (never barium) completes the diagnosis without question. The characteristic tear is just above the diaphragm and is longitudinal.

Vomiting could likewise cause incomplete rupture of the esophageal wall. Cases of that kind are not well authenticated, but it is quite possible that such a lesion might heal completely, or an abscess form or a stricture or even a diverticulum develop.

Instrumental perforations are among the commonest causes of extrinsic intraluminal injury and they have been caused by both flexible and rigid instruments. Often when perforations of a normal esophagus occurs, it is in the cervical region. The advancing tip of the esophagoscope may be responsible, particularly if the esophagoscopy is difficult or performed under inadequate local anesthesia. In most cases, however, the thin wall of the esophagus is crushed between the rigid tube and the anterior curve of the lower cervical vertebrae.[10] When local anesthesia seems necessary, insertion of the tube may be aided by using a flexible obturator. The author's preference, however, is for general anesthesia which gives adequate relaxation to the constrictor muscles.

Perforations following attempted dilatation usually occur at the site of a preexisting lesion, such as a carcinoma or stricture. Perforation also has occurred at the site of removal of material for biopsy.

In accidental perforation of the cervical esophagus a triad of symptoms makes the diagnosis certain[36]: (1) Severe localized pain on swallowing and exquisite tenderness at one point. (2) Resistance to flexion of the neck; (3) Swelling and palpable crepitation. A lateral x-ray film will show the typical widening of the soft tissue shadow posterior to the trachea. Usually a swallow of Lipiodol will demonstrate the actual perforation, but mottled air in the soft tissues is just as valid.

When the lower esophagus is perforated the symptoms may not be so severe and one can be temporarily mistaken in the diagnosis. The early development of pain along one or the other costal margins is a very valuable sign. Mediastinal and cervical emphysema are pathognomonic, as is the rapid development of pneumothorax or sizable pleural effusion. Again, a swallow of Lipiodol is mandatory and usually will locate the perforation.

The signs of perforation caused by a foreign body are usually delayed and are not dramatic. Frequently there is minute, slow penetration and infection tends to remain local. Instrumentation or vomiting may hasten the perforation. The symptoms vary with the location of the foreign body and frequently are those of persisting pain on swallowing or inability to swallow, tenderness in the neck, possible pleurisy, generalized malaise and fever.

Acute burns of the esophagus have been reduced by education and restrictive legislation with regard to caustics and strong acids. Both accidental and suicidal ingestion still occur, however. The acute injury is a first, second or third degree burn, but it is not often that the patient is seen at this stage by a thoracic surgeon. Perforation rarely occurs since the material passes rapidly through the esophagus. Later complications depend on the degree of the burn: If the mucosa only is damaged, stricture is improbable; when the muscular coats are affected, some narrowing is inevitable.[42]

TREATMENT

In general, three factors determine the immediate severity of ruptures and perforations of the esophagus, and their course: (1) The size of the perforation; (2) The rapidity of the perforation; (3) The preexisting condition of the esophageal wall. At one extreme is the classical postemetic rupture—a large sudden tear in a normal esophagus and overwhelming contamination of a virgin mediastinum and pleura. With no treatment or with inadequate drainage, death results. At the other extreme is a slow, tiny perforation of a sharp metallic foreign body proximal to an old inflammatory stricture. There is little likelihood of serious consequence from such a perforation. Between, lie all gradations of damage and danger.

It is unfortunate that, despite expert surgical opinion to the contrary,[8, 9, 17, 35, 37, 44] the medical literature still carries many a communication counseling conservatism in the treatment of both ruptures and perforations.[13, 19, 21, 26, 33, 42] World War II should have proved once and for all the exigency of prompt suture of intestinal wounds. The gullet

is a viscus and early closure of rents and tears is no less mandatory than with other hollow organs in the abdomen. It ill behooves either general or thoracic surgeon or otolaryngologist to ignore this tenet just because the esophagus happens to traverse neck and chest instead of resting completely within the abdomen. Not only does a stated dependence on massive antibiotic therapy contravene the principle,[19, 21] but equally fallacious is the assertion, based on success in one case, that "conservatism is safe."

Both personal and collected experience may convince one that an appreciable percentage of patients recover on non-surgical treatment, but it should be equally obvious that routine dependence on purely ancillary measures often will result in a high mortality rate and prolonged morbidity. The statement of one surgeon that "one can wait," and that "at the first sign of spread [of an established infection] the neck should be opened"[21] ignores the fact that mediastinal phlegmon, once established, may well progress fatally in spite of any treatment.

The author believes most ruptures and perforations can be diagnosed with certainty and that they then become surgical emergencies. Only if the rent is merely suspected or the perforation minute can a delay in operation be justified. Then, with the patient given intensive supportive therapy, antibiotics, etc., there should be obvious and progressive betterment. If doubt exists as to definite improvement during 12 hours of conservative therapy, immediate operation is indicated.

Early surgical intervention consists of intensive resuscitation for two or three hours where necessary, the insertion of a Levine tube into the stomach, administration of massive doses of mixed antibiotics, surgical exposure of the tear and repair of it with fine silk, débridement of the contaminated tissues and adequate drainage. Intrathoracic ruptures and perforations that are definitely diagnosed within 18 to 24 hours after they occur should be treated by transpleural thoracotomy and repair, with tube drainage of the pleural cavity. Drainage alone, particularly of massive pleural effusion, has no place in the early surgical therapy of either a rupture or perforation.

In treating perforations of the cervical esophagus, one may have a few more hours' grace. In the series herein reported upon, there was rapid, uncomplicated recovery in cases of this kind if operation was done within 48 hours after symptoms began. Seybold reported difficulty in finding the lesion in such cases, but the author, using the classical anterior cervical mediastonotomy after the manner of Von Hacker,[43] has found and sutured the perforation in almost all cases. Ancillary measures consist of the insertion of a plastic stomach tube to rest the esophagus as much as possible, adequate parenteral infusion of fluids, and administration of vitamins and massive doses of antibiotics. Adams[3] insisted on routine gastrostomy but this is neither necessary nor advisable in most instances. It may be specifically indicated: (1) When operative repair has been delayed and there is a persisting fistula; (2) In neglected stricture when nutrition is poor and retrograde dilatations become necessary.

There is no unanimity as to the early treatment of burns of the esophagus and the prophylaxis against stricture.[22] Some investigators begin treatment very soon after the ingestion of caustics and start the passage of graduated mercury-filled bougies as soon as mucosal healing has commenced (approximately two weeks[21]); others delay treatment until there is difficulty in swallowing liquids, usually from four to six weeks.[42] The need for esophagoscopy soon after the ingestion of caustics or acids has not been settled. There is general agreement on the following: neutralization of the offending liquid; thorough gastric lavage; generous ingestion of bland oils; general supportive measures, intensified if shock is present; early swallowing of a silk thread, which is kept in place indefinitely, at first acting as a filiform bougie and later as a guide for the use of graduated olive dilators.

LATER COMPLICATIONS

Some patients survive the initial insult of a gross perforation or rupture in spite of misdiagnosis, dependence on antibiotics, poorly conceived and executed drainage procedures or no operation at all. In others, well-planned operation may have failed. In a final group, strictures may inevitably develop because of the long sojourn of foreign bodies, or from severe burns.

Localized abscess is one of the more frequent complications and it may be acute or chronic. Any wound or injury of the esophagus with resulting mediastinal contamination may result in an abscess. In tiny, slow perforations there is time for mediastinal "defense" to be mobilized. If no early surgical treatment has been undertaken and the signs and symptoms indicate the formation of an abscess, drainage probably should be delayed for 24 to 48 hours to allow a firmer wall to develop. The cervical region and the thoracic mediastinum down to the level of T 4-5 can be drained through cervical mediastinotomy. If the abscess is below that level, adequate dependent posterior extrapleural mediastinotomy should be performed by resection of a short segment of one or two ribs and the corresponding transverse processes. This should be done on the side of the greater pain or the side of the greater bulge as shown in x-ray films. Hard rubber tubes should not be introduced, owing to the danger of

erosion; a loose dressing with small catheters for alternate drip instillations and suction are worth while.

Esophageal fistulae result from mural injury, the persistence of contiguous foreign bodies and the presence of infection. Usually they can be prevented by early operation and closure of rents.

Esophagotracheal fistula may be caused by external trauma,[1, 2, 39] penetrating wounds[11, 20, 25, 29] and perforation from foreign bodies.[24] The immediate surgical exposure and repair of an obvious tracheoesophageal communication should forestall later complications but there is no record that this has ever been attempted. When the sole early treatment is supportive, both tracheotomy and gastrostomy are indicated procedures. Esophagopleural fistula is common among patients who survive the initial insult of intrathoracic perforation or rupture of the esophagus. The condition is regularly associated with empyema and very frequently with subtotal collapse of the lung. Esophagocutaneous fistula may persist following the extrapleural drainage of a mediastinal abscess.

The cure of fistulae may entail any combination of: Adequate drainage of localized infection (either abscess or empyema); decortication with the reexpansion of a collapsed lung; the removal of foreign bodies; the use of a Levine tube or gastrostomy for esophageal rest. When these measures do not suffice, direct exposure of the fistula with mobilization and closure are indicated.

Stricture of the esophagus occurs primarily from injury to the muscular coats of the esophagus, especially when followed by chronic inflammation. Localized strictures may follow the pernicious vomiting of pregnancy. Possibly localized stricture begins from a tear in the mucosa but not in the muscular layers of the wall. Strictly local trauma, the prolonged sojourn of a foreign body within the esophagus or a missile just without, may likewise cause localized stricture.[20] Dilatation usually is successful. The first dilatation may be combined with endoscopy in which esophagoscopes of increasing size together with flexible bougies may be used. Later, dilatations with olive dilators over a previously swallowed string are employed. Blind bougienage should be avoided.

Multiple or generalized strictures may follow the ingestion of caustics or acids. Dysphagia will develop in from four to six weeks. Dilatations should then be commenced as outlined above and may be necessary intermittently for at least two years or longer.

Until recently, patients with severe generalized strictures were doomed to many years of dilatations, semi-permanent gastrostomies and the dangers of intrathoracic suppuration from spillover into the trachea or instrumental perforation. Theirs was frequently an unhappy state; many existed but did not live. It is now possible, however, to operate on the esophagus with constantly lessening hazard. In the opinion of most thoracic surgeons, patients with stricture of the esophagus that does not respond rapidly to dilatation should have the benefit of radical extirpative operation. Operations of several types may be performed:

1. Localized resection of from one to two inches of the esophagus and end-to-end anastomosis.[14] This is a feasible procedure in any portion of the esophagus and can be used for a highly localized stricture which has not rapidly responded to dilatation.

2. Esophageal resection of greater or lesser extent combined with mobilization of the stomach and intrathoracic esophagogastric anastomosis.[28, 40] This is the most common method of esophageal replacement and has been performed successfully as high as the lower border of the inferior constrictor of the pharynx.[18, 41]

3. Various types of small bowel transplants, employed for localized or subtotal esophageal replacement: Antethoracic in position;[45] immediately substernal;[34] intrathoracic.[15, 32]

4. Large bowel transplants, an exciting prospect in the use of transverse and descending colon as a substitute either for the esophagus alone or for both esophagus and stomach. In some cases of stricture caused by caustic materials the stomach is damaged so much that partial resection is necessary and the stomach is, therefore, not available for intrathoracic substitution. The technique of large bowel mobilization is fairly well standardized,[7, 30] but no published report of replacement for stricture could be found. Hunnicutt and the author completed one transplant for extensive caustic stricture in a patient who had had a partial gastric resection. The patient died on the fifth day from generalized peritonitis. At autopsy there was unexplained necrosis of the duodenum with multiple small perforations. Both esophagocolic and gastrocolic anastomoses were solid.

5. The insertion of a plastic tube to replace a portion of the esophagus.[5] This method may be particularly valuable in a debilitated patient who cannot stand more extensive operation. The experimental basis is sound and the limited clinical experience has been encouraging.

In the literature, little or no consideration has been given to trauma as a possible cause of intrathoracic diverticula, especially diverticula in the lower esophagus. Kay cited one or two patients in whom mediastinal foreign bodies caused esophageal diverticula. Experimentally, it has been shown that frequently more intraluminal pressure is necessary to rupture the mucosa than the muscular coats of

the esophagus. It seems reasonable that the same mechanism could occur with vomiting. Continued study of a small group of patients with intrathoracic diverticula is uncovering suggestive confirmatory evidence.

DISCUSSION

The author and D. J. Dugan have observed 31 patients with esophageal trauma. Twenty-nine of them had perforations or ruptures and eight died (28 per cent). The 29 patients have been grouped according to the treatment given:

	*Definitive Operation—			
	Under 48 Hrs.	Over 48 Hrs.	†Drainage Only	No Operation
No. of Patients	9 Patients	4 Patients	6 Patients	10 Patients
Cure without complications....	8	1	1	7
Cure with complications....	0	1	3	0
Died	1(11%)	2(50%)	2(33%)	3(30%)

The distribution of deaths in this series argues strongly for early definitive operation. The one fatality following early operation was in a patient with totally obstructing carcinoma.

When the pleural cavity only was drained, there was usually prolonged morbidity or death. Total decortication was necessary in three patients.

Of final importance is brief consideration of the seven patients who recovered without operation and with no complications. In five, penetration of the esophageal wall was by a foreign body, and in general the penetration was slow and the perforation minute; in two there was preexisting but minor esophageal disease and it is possible that old periesophagitis may have had a limiting effect on extension of infection.

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*"Definitive operation" means some combination of the following: Direct exposure of injured esophagus; suture when feasible; debridement; incidental drainage.

†"Drainage only" means that the primary procedure was intercostal or rib resection drainage of a pleural complication with no attempt made to treat the perforation directly.

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In Viewing the VA Medical Program . . .

how VA facilities are being used

Patients Discharged During 1951

	TOTAL	SERVICE CONNECTED		NON-SERVICE CONNECTED	
TB	21,388	10,550 = 2.1%		10,838 = 2.1%	
NP	47,673	16,530 = 3.2%		31,143 = 6.1%	
GM&S	442,834	51,820 = 10.1%		391,014 = 76.4%	
TOTAL	511,895	78,900	15.4%	432,995	84.6%

The medical profession recommends that VA medical care be maintained for treatment of all service-connected cases and temporarily for all wartime veterans suffering from tuberculosis or neuropsychiatric disorders of non-service-connected origin, within limits of existing VA facilities, if they cannot afford private medical care. General medical and surgical patients with non-service-connected disabilities (now 76.4% of all VA patients) should not be entitled to "free" federal medical care.

Rheumatoid Arthritis

An Evaluation of Long-Term Treatment with Cortisone

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• *Fifty-six patients with rheumatoid arthritis were treated continuously with cortisone for periods ranging between 4 and 38 months, in daily doses of 15 to 100 mg. Concomitant therapy included periods of rest, physical therapy, and salicylates.*

The incidence of subjective improvement exceeded that of objective improvement.

The incidence of objective improvement was higher in females; also, in those patients whose disease was in an early stage and of short duration at the time therapy was begun, and who required relatively smaller maintenance doses of cortisone.

Therapeutic results were not affected by the age of the patient or by the presence of spondylitis.

Despite precautions, the long-term administration of cortisone was, in some patients, productive of serious undesirable side-effects.

Although cortisone usually suppressed the symptoms and signs of rheumatoid arthritis, progression of the disease was frequently noted during its long-term administration.

THE IMMEDIATE, dramatic effects of cortisone on the symptoms and signs of rheumatoid arthritis are well-established.[7, 8, 9, 12] It is equally well known that relapse commonly follows withdrawal of cortisone and that cortisone must usually be given continuously in order to sustain its beneficial results.[1, 6, 9, 12] This paper is a progress report of 36 male and 20 female patients with rheumatoid arthritis who were treated with cortisone* for 4 to 38 months. To each of the 56 patients cortisone was given continuously unless there was sustained remission, toxic reaction or inadequate benefit. All patients were observed for at least one year after the institution of therapy with cortisone.

The patients were seen in the facilities of the Veterans Administration and in private practice. Candidates for treatment were screened for possible medical contraindications to the prolonged use of cortisone.[3] Peptic ulcer, tuberculosis, diabetes mellitus, hypertension and pronounced emotional instability were considered reasons for exclusion except in instances in which rapid progression of the arthritis seemed to justify the risk involved.

In seven cases cortisone was given even though the patients had hypertension† and in three cases despite mild anxiety neurosis. Radiologic evidence of pulmonary, apical fibrosis was present in two additional patients who showed no evidence of active pulmonary disease. Another patient had had proven tuberculosis of the pleura 21 months before treatment with cortisone was started but the thoracic disease presumably was quiescent when hormonal therapy was begun.

Many of the patients were initially treated for several weeks in a hospital, but all were observed subsequently on an outpatient basis. Cortisone was administered orally except in a few patients to whom the drug was given intramuscularly before knowledge of its effectiveness when given orally. An initial daily dose of 100 mg. was slowly reduced after the first weeks of therapy in order to establish the minimal amount for effective maintenance. "Maintenance dose" as the term is used here is the minimal amount of cortisone which produces a satisfactory functional result without necessarily influencing each of the objective signs of active disease.[3] No effort was made to keep the patient symptom-free, especially when this required a daily dose in excess of 50 mg. Concomitant therapy included bed rest, physical therapy and salicylates, measures which usually had been prescribed before the administration of cortisone was begun. Daily bed rest ranged from 24 hours, early in the treatment with cortisone, to a minimum of 12 hours. Physical therapy included heat, both luminous and moist, and directed exercises. Splints, traction, and crutches were used when indicated. The daily dose of salicylates varied between 2.4 and 3.6 gm. Mild sedatives were given as needed. No

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*Supplied by Merck & Co., Inc.

†Patients were regarded as hypertensive when the blood pressure consistently exceeded 150 mm. Hg, systolic, and/or 95 mm. Hg, diastolic.

other drugs were employed therapeutically; however, corticotropin was administered occasionally for the purpose of demonstrating adrenal responsiveness.

After the first few weeks of therapy, the patients were seen weekly or bi-weekly and never less often than once a month. Observations with each visit included determination of blood pressure and body weight and interviews to detect abnormal swings of mood. There were frequent examinations for glycosuria. X-ray films of the chest were taken every six months.

The stage of arthritis at the beginning of cortisone therapy, classification of functional capacity, and the grade of improvement were expressed according to criteria of the American Rheumatism Association.‡[16] The grade of improvement was based exclusively on such objective signs as systemic manifestations of active disease, articular inflammation, extra-articular activity (i.e. subcutaneous rheumatoid nodules, tenovaginitis, or iritis), and roentgenologic findings. Results of therapy were compiled in May 1953, and their analysis was patterned after the methods employed in a long-term study of patients whose therapy for rheumatoid arthritis was limited exclusively to non-specific measures.[14]

RESULTS OF THERAPY

Twenty-nine of the 56 patients, or 52 per cent, were classified as improved (Table 1). Complete remission occurred in ten patients, who showed no systemic or local signs of rheumatoid activity. The remission in five of these ten patients was sustained by continued administration of cortisone, while the remaining five patients no longer required cortisone. Twenty-seven of the 56 patients, or 48 per cent, were listed as unimproved. The disease actually progressed in 23 of these 27 patients despite the continued administration of cortisone. Progression of rheumatoid arthritis was manifest by new sites of sustained rheumatoid activity, extra-articular as well as articular, and by roentgenologic changes. X-ray evidence of rheumatoid progression included increase of osteoporosis beyond that which might be expected from the dose of cortisone, increase or extension of destruction of cartilage and/or bone, and new (or more) bony ankylosis. Serial radiologic films of key joints showed evidence of irreversible progression in 22 patients.

The stages of arthritis and the incidence of improvement in each stage are shown in Table 2. The disease was active in each of the 56 patients before the administration of cortisone. The incidence of favorable therapeutic response to cortisone was higher among patients with early or moderate disease than among those whose arthritis was more advanced.

The duration of arthritis before administration of cortisone ranged from 7 to 60 months (average: 21.6 months) in 13 of the 56 patients and from 5 to 43 years (average: 14.5 years) in the remaining 43 patients (Table 3). The incidence of favorable response to cortisone was higher in the group with disease of relatively short duration.

Although most American rheumatologists regard ankylosing spondylitis as a manifestation of rheumatoid arthritis, other investigators believe it is a separate entity.[12] To eliminate any possible influence of spondylitis, the therapeutic results of cortisone were analyzed in terms of the presence or absence of spondylitis (Table 4). Nineteen of the total group of 56 patients had involvement of the spine. Of these 19 patients, 15 had coexisting peripheral arthritis and the other four had involvement of the hips and/or shoulders. The incidence of improvement among patients with spondylitis did not differ significantly from that observed among patients in whom arthritis was confined to the peripheral joints.

Thirty-six of the total group of 56 patients were male (Table 5). The therapeutic results were slightly better in females. Since all but one of the patients

TABLE 1.—*Status of rheumatoid arthritis in 56 patients receiving long-term cortisone therapy*

Grade of Improvement*	Number	Per Cent
I. Complete remission—cortisone sustained, 5; cortisone not required, 5	10	18
II. Major improvement	15	27
III. Minor improvement	4	7
IV. Unimprovement	27	48

*According to criteria of American Rheumatism Association.[16]

TABLE 2.—*Incidence of improvement* in relation to stage of rheumatoid arthritis*

Stage of Disease*	Number of Patients	Patients —Improved— Number	Per Cent
I. Early	7	5	71
II. Moderate	10	7	70
III. Severe	25	9	36
IV. Terminal	14	8	57

*According to criteria of American Rheumatism Association.[16]

TABLE 3.—*Incidence of improvement in relation to duration of rheumatoid arthritis*

Duration Before Therapy	Number of Patients	Patients —Improved— Number	Per Cent
5 years or less	13	11	85
More than 5 years	43	19	44

‡The same criteria were employed for determination of functional capacity and improvement in patients with spondylitis. However, the method of determination of the stage of arthritis in patients with spondylitis was based on a modification of these criteria by M. Ziff and O. Steinbrocker. It will be published soon in the Cooperative Study of Cortisone Therapy in Rheumatoid Arthritis, sponsored by the American Rheumatism Association.

with spondylitis were male, it was considered desirable to exclude the patients with spondylitis and to compare the therapeutic results in the 37 male and female patients in whom arthritis was confined to the peripheral joints (Table 6). In this group also the incidence of improvement was higher in female patients, although the stage and duration of disease had not differed significantly in the two sexes.

Age of the patients ranged between 21 and 76 years when cortisone was started. Thirty-nine of the 56 patients were over the age of 40 years. Age did not influence significantly the therapeutic effect of cortisone (Table 7).

The average daily doses of cortisone, following the first month of therapy, are shown in Table 8. Most patients were given daily doses of 75 mg. or less, and 15 of the patients were maintained on daily doses of cortisone of 50 mg. or less. No patient was given a daily dose in excess of 100 mg. Of the 13 patients who received daily doses of 75 to 100 mg., all but two were male. The maintenance dose did not necessarily parallel the stage or duration of the disease. It may be of prognostic importance that most of the patients requiring the smallest doses of cortisone showed significant improvement, while those requiring the largest amount of cortisone showed the lowest incidence of improvement.

The duration of treatment with cortisone varied between 4 and 38 months. For most patients it was 13 months or longer. The data in Table 9 indicate that the longer cortisone was required the lower was the incidence of objective improvement. It must be recognized, however, that the data also reflect, partially, the incidence of those factors which justified the withdrawal of cortisone.

It is of some interest to analyze the data concerning the five patients (three males, two females) in whom the disease was in complete remission and who no longer required cortisone (Table 10). The known duration of sustained remission varied between 3 and 13 months. The stage of rheumatoid arthritis was early or moderate and the duration of the disease before therapy with cortisone was started varied between 7 and 48 months. These observations confirmed the impression that the best therapeutic results with cortisone were obtained in cases in which rheumatoid arthritis was early or moderate and of comparatively short duration. In four of the five patients, the required maintenance dose was less than 50 mg. These data again supported the favorable prognostic significance of a small dose of cortisone which satisfied the maintenance requirements.

TABLE 4.—*Incidence of improvement in relation to presence and absence of spondylitis*

	Number of Patients	Patients —Improved— Number	Per Cent
Spondylitis	19	10	58
No spondylitis	37	18	49

TABLE 5.—*Incidence of improvement in relation to sex*

	Number of Patients	Patients —Improved— Number	Per Cent
Males	36	16	44
Females	20	13	65

TABLE 6.—*Incidence of improvement in relation to sex, excluding patients with spondylitis*

	Number of Patients	Patients —Improved— Number	Per Cent
Males	18	6	33
Females	19	12	63

TABLE 7.—*Incidence of improvement in relation to age of patients*

	Number of Patients	Patients —Improved— Number	Per Cent
Under age of 40 years	17	8	47
Over age of 40 years	39	21	54

TABLE 8.—*Incidence of improvement in relation to daily dose of cortisone*

Daily Dose of Cortisone	Number of Patients	Patients —Improved— Number	Per Cent
15-50 mg.	15	13	87
51-75 mg.	28	14	50
76-100 mg.	13	2	15

TABLE 9.—*Incidence of improvement in relation to length of therapy with cortisone*

Length of Therapy Months	Number of Patients	Patients —Improved— Number	Per Cent
4-12	5	3	60
13-24	27	15	55
25-38	24	11	46

TABLE 10.—*Data on five cases in which patients had remission of rheumatoid arthritis after long-term cortisone therapy (cortisone no longer required)*

Length of Sustained Remission	3, 9, 10, 12, 13 months
Stage of Disease	Early, 3 patients; Moderate, 2 patients
Duration of Disease before Therapy	7, 16, 18, 47, 48 months
Daily dose of cortisone	15 mg. to 50 mg., 4 patients; 51 mg. to 75 mg., 1 patient
Length of Therapy with cortisone	4, 10, 13, 16, 18 months
Length of Sustained Remission	3, 9, 10, 12, 13 months
Stage of Disease	Early, 3 patients; moderate, 2 patients

The incidence of subjective improvement was significantly higher than objective improvement. Of the 56 patients studied, 49 (87.5 per cent) had at least some decrease in pain and stiffness and significant increase in agility and joint mobility (Table 11). The resulting functional improvement was usually sustained, with occasional fluctuation, as long as cortisone was continued. Patients whose activities had been handicapped by pain or limited motion were often enabled to perform usual business or household duties. This increased functional capacity made possible, in many cases, an important degree of social and economic rehabilitation. It must be emphasized, however, that functional improvement was often observed despite obvious progression and increasing severity of the disease process. An example was the case of a 57-year-old man who had been almost totally disabled by rheumatoid arthritis. He was given cortisone in a daily dose of 50 to 75 mg. for 31 months. Within a few weeks following the administration of cortisone he was able to return to his work, where he remained on a full-time basis. Comparison of an x-ray film of the hand taken after long continued therapy with one taken immediately before the administration of cortisone began showed not only progressive changes in the previously affected joints, but also new joint involvement manifested by marginal erosion and diminished joint space—unequivocal evidence of progressive disease. Twenty-one of the 49 patients who were improved subjectively and functionally were classified on the basis of objective evidence as unimproved or worse.

TABLE 11.—*Functional capacity of 56 patients with rheumatoid arthritis before and during therapy with cortisone*

Before Therapy	During Therapy			
Class*	No. of Patients	Class I* No. of Patients	Class II No. of Patients	Class III No. of Patients	Class IV No. of Patients
IV	9	2	2	4	1
III	36	9	24	3	
II	11	8	3		
I	0				

*Class I: Complete ability to carry on all usual duties without handicaps.
Class II: Adequate to conduct normal activities despite handicap of discomfort or limited motion at one or more joints.
Class III: Limited functional capacity adequate to perform only little or none of the duties of usual occupation or of self-care.
Class IV: Incapacitated largely or wholly; bedridden or confined to wheel chair; little or no self-care.

The undesirable side-effects of cortisone which were observed in these 56 patients are shown in Table 12. Moon-face was the commonest and was seen at some time during the administration of cortisone in all but four patients. Hypertension was observed in 13 patients, 10 of whom showed return to normal levels of blood pressure following downward revision of the dose of cortisone. Hypertension was uncontrolled in three patients, despite reduction to the minimal effective dose of cortisone. In seven patients who had hypertension before the administration of cortisone no significant change in blood pressure occurred during therapy. Fluid retention and edema occasionally necessitated restriction of salt and, rarely, a diuretic was required. Emotional instability was observed in nine patients. Three additional patients who had mild anxiety neuroses before corti-

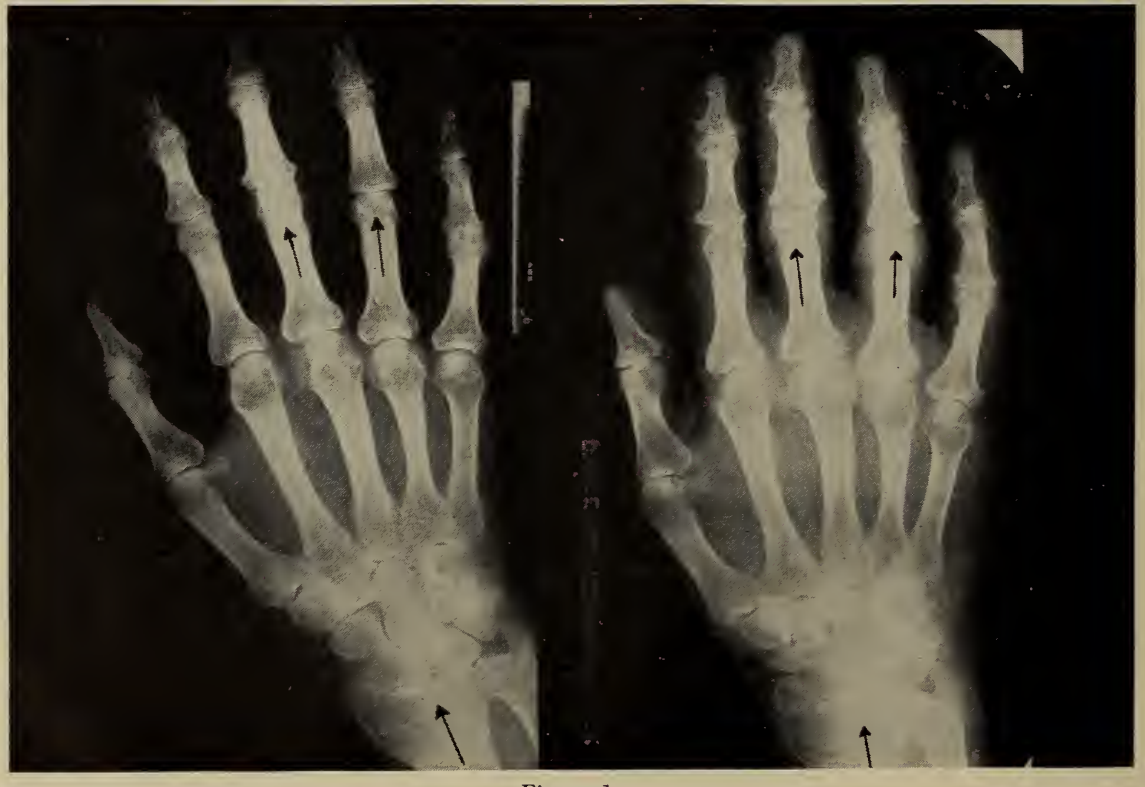

Figure 1

sone was given did not have new psychiatric problems during therapy. Thrombophlebitis, which may have been unrelated to cortisone, occurred in three patients. It subsided completely despite the continued administration of cortisone. In two patients, each 77 years old, cerebrovascular accidents occurred which led to death. One such episode occurred after therapy with cortisone for 15 months in a daily dose of 50 to 75 mg. The other patient had a cerebrovascular accident one month after cortisone (given for 20 months in a daily dose of 50 mg.) had been discontinued. The role of cortisone in these vascular accidents is moot. Duodenal ulcer occurred in two patients; in one, the ulcer was discovered unexpectedly at postmorten examination. Pathologic fractures of vertebrae occurred in two female patients, aged 77 and 52, both of whom had severe osteoporosis before the administration of cortisone. This is not inconsistent with the observation of other investigators that undesirable effects of cortisone occur more commonly in females during and following the menopause.[12, 15] Healing was delayed in one of seven patients who had either undergone major surgical procedures or who had traumatic fractures. Polyarteritis, resulting in gangrene and amputation of one lower extremity, occurred in one patient during the eighteenth month of therapy while she was receiving cortisone in a daily dose of 75 mg. The culpability of cortisone in this case is uncertain, although reports of a similar complication during the administration and following the withdrawal of cortisone have been recorded elsewhere.[11, 13, 15]

Glycosuria, psychosis or masked infection were not observed in this group of patients, nor was there indication of irreversible adrenal atrophy. However, depression of adrenocortical function was observed in every case in which it was tested.[4, 5] Periods of stress such as respiratory infections, surgical operations and trauma were tolerated well with the aid of supplemental doses of cortisone. Cortisone-induced hypothyroidism was not observed.[5]

Cortisone was discontinued in three patients because of contraindications—duodenal ulcer in one instance, hypertension in another, and pathologic vertebral fracture in the third. The indications for the withdrawal of cortisone from nine additional patients are shown in Table 13. Symptomatic relapse of rheumatoid arthritis followed withdrawal of cortisone except in patients in whom the disease was in remission. Of the 44 patients who were still receiving cortisone at the time of this report, three were still being given the drug despite, in one case, pathologic vertebral fractures, and in two cases the persistence of hypertension which had not been present before the administration of cortisone.

Only one of the 54 living patients is no longer under the authors' observation. At the time she moved away the disease status was classified as unimproved.

TABLE 12.—*Undesirable side-effects of cortisone observed in 56 patients during long-term therapy*

	Number	Per Cent
Moon-face	52	93
Hypertension, transient	10	18
Hyerptension, persistent	3	5
Excess fatigability	10	18
Fluid retention	9	16
Emotional instability	9	16
Thrombophlebitis	3	5
Cerebral vascular accident*	2	4
Duodenal ulcer	2†	4
Pathologic fractures of vertebrae	2	4
Hirsutism	2	4
Acne	2	4
Delayed healing	1	2
Polyarteritis*	1	2
Death*	2	4

*Role of cortisone is moot.
†One discovered postmortem.

TABLE 13.—*Present status* of 56 patients started on long-term cortisone therapy for rheumatoid arthritis*

No longer receiving cortisone		12
Indications for withdrawal—		
Deleterious effects	3†	
Death	1	
Remission of rheumatoid arthritis	5	
Symptomatic ineffectiveness	2	
To compare effects of other drugs	1	
Still receiving cortisone		44‡

*May, 1953.
†One patient died one month after withdrawal of cortisone.
‡Despite development of contraindications in three cases.

DISCUSSION

The recorded observations have served to reemphasize the important distinction between subjective and objective criteria for improvement in rheumatoid arthritis. They have also indicated that the response of rheumatoid activity to cortisone may depend upon such factors as severity and duration of the disease before the use of cortisone. While these and other observations in the study were of interest, the small number of patients precludes any generalization as to their significance, especially with regard to specific influence of cortisone. The spontaneous variations in the natural course of rheumatoid arthritis make evaluation of any therapy the more difficult. In a ten-year follow-up of 250 patients whose treatment for rheumatoid arthritis was limited chiefly to rest, physical therapy and salicylates, Short and Bauer observed objective improvement in 133 patients, or 53 per cent; the disease was in remission in 38 patients, or 15 per cent.[14] These results are comparable to those of the present study, in which objective improvement was noted in 27 patients, or 52 per cent, while the disease was in remission in

ten patients, or 18 per cent. (Five of the ten remissions were sustained with the aid of cortisone.) In the study by Short and Bauer, as in the present study, an early stage and short duration of the disease at the time of the beginning of treatment augured a favorable prognosis. Although the stages of the disease and the criteria for improvement were not strictly comparable in the two studies, the similar results suggest that the addition of cortisone to nonspecific therapy did not influence statistically the course of the disease, and that the best results with cortisone were often obtained in those patients whose course might have been favorable without the introduction of so-called specific measures. Similar opinions, based largely on objective criteria, were recently expressed by other investigators.[2] It must be stated, however, that the emotional and economic implications of subjective and functional improvement cannot be disregarded.

It is of course possible that better results in terms of objective criteria might have been obtained had larger doses of cortisone been employed in order to restrain more completely the signs of rheumatoid activity. However, this would have been at the risk of more frequent serious side effects of the drug. The observed undesirable effects of cortisone were similar to those described by others.[10, 12] Although the drug was discontinued in only three patients because of deleterious effects, it was continued in three other patients despite the development of obvious contraindications to its continued use. Undoubtedly, the possibility of serious untoward effects of cortisone may be lessened by careful selection of patients for therapy, by the use of small maintenance doses, and by close supervision of patients during therapy. Nevertheless, the authors' experience has served to emphasize the potential risk of therapy with cortisone, despite caution and vigilance.

Final opinion regarding the status of cortisone in the therapy of rheumatoid arthritis must await the elapse of more years, during which observations such as these may continue. At present it is obvious that cortisone is not a substitute for conservative and well-established measures. Combined with them, however, cortisone offered a unique experience in therapeutics; in many cases it provided a degree of social and economic rehabilitation which occurred even in the presence of advancing disease.

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Use of Hexamethonium in Arterial Hypertension

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• *Hexamethonium is a potent anti-hypertensive agent. Its use is associated with prominent and unpleasant side effects, and sometimes with circulatory complications from excessive depressor action. It is suitable for relatively few hypertensive patients, and often fails when renal insufficiency is present. The degree of care required to obtain satisfactory effectiveness is such that the program of treatment becomes too unwieldy for general use.*

THE USE of almost any newly introduced or enthusiastically given drug is followed by relief of certain symptoms and even by apparently "significant" reduction of blood pressure levels in the majority of hypertensive patients. These placebo-like effects, related to the patient-physician relationship or to "treatment" *per se*, were first stressed by David Ayman over twenty years ago but are often forgotten in the excitement attending the promotion of new anti-hypertensive agents. Ayman's classic papers[1, 2, 3] are well worth rereading periodically. Even more important than Ayman's plea for the objective evaluation of new agents was the point made by Sir James Mackenzie, who expressed his pleasure that drugs of the vasodilator class were then ineffectual and who wrote: "There has been so much nonsense talked and written about high blood-pressure, that I am constrained to draw attention to our extreme ignorance of the cause and consequence of raised blood-pressure. That we are totally ignorant of the cause, does not prevent many people adopting heroic measures for reducing it, without even considering the wisdom or necessity for so doing."[5]

Among the heroic measures in current use are halides of the hexamethonium (hexamethylene-bis-trimethylammonium) ion, introduced against hypertension by Smirk[4, 9] in particular and used by others in conjunction with additional agents such as 1-hydrazinophthalazine.[6, 8] By itself, hexamethonium lowers arterial pressure by blocking the transmitter activities of acetylcholine in autonomic ganglia. Not selective for vasomotor ganglia, the ion also interferes with the innervation of such organs as the eyes, bowel and urinary bladder. This produces unpleasant side effects including blurred vision (not to be confused with that of hypertensive retinopathy), dry mouth, urinary retention and severe constipation; such effects require additional and often energetic symptomatic measures. It is at once apparent that hexamethonium is not wisely given to hypertensive patients who are free from symptoms. For the reduction of pressure in recumbent patients, larger doses of the ion are needed than those which suffice to lower the pressure of the same patients when they are sitting or standing. Smirk utilized this postural hypotension, which resembles that following successful surgical sympathectomy, to therapeutic advantage.

Properly given, the drug reduces pressure appreciably in the majority of hypertensive subjects. As Mackenzie feared, this is by no means always beneficial. Fall of pressure, especially in older patients and in those with fairly recent coronary, cerebral or renal arterial thrombosis or narrowing, sometimes precipitates acute myocardial infarction, hemiplegia, uremia or even death. Furthermore, complications of hypertensive disease may regress in the face of unchanged pressure level.[7, 10] From these and similar considerations it seems clear that hexamethonium is not a cure for hypertensive disease, that it provokes unpleasant symptoms, precipitates vascular complications and is indicated in but a relatively few patients. For the most part, these are rather young patients with severe or malignant syndromes. Unfortunately, renal involvement is almost the rule in such instances, and when this condition is advanced the results are highly unsatisfactory. The dose must be smaller in the presence of nitrogen retention, for the ion is excreted in the urine.

If the drug is to be used, choice has to be made between oral and parenteral dosage forms. The hypodermic route provides rapid and reasonably predictable absorption and results, but is awkward; patients are taught self-injection as are diabetic persons using insulin. The oral route is of course more simple, but absorption is both poor (doses ten-fold or more those effective parenterally) and inconstant; moreover, the induced constipation increases absorption irregularly. If only severely ill patients are selected (as the author does) it seems wise to follow

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Smirk's example and give the drug subcutaneously for greater and more predictable effectiveness.

With the patient under careful observation in a hospital, treatment is commenced. The patient should be up and about as much as possible, sitting up or at least propped up in a bed which has blocks under its head so that postural effects are utilized. The first two doses several hours apart, should not exceed 5 mg. each, in order to avoid syncope or more severe depressor reactions. Since tolerance appears promptly, the dose must be increased during the next few days or even weeks; there is no arbitrary upper limit to the amount tolerated after a short time, when the dose (once or twice daily) is adjusted to the individual patient's response. This requires careful observation and many determinations of arterial pressure, especially in the hour or two immediately following an injection. Patients may be taught to determine their own arterial pressure levels to facilitate regulation. They must be in such surroundings as to be able to lie down if necessary to combat postural hypotension; with care, phenylephrine hydrochloride is not often required. It should be apparent that effective therapy is also dangerous and awkward; it is expensive in money and sometimes in time, as when recumbency is necessary for an hour or so following an injection.

Other investigators have observed reversal of the malignant phase of hypertension under such a regimen. The author has not had this fortunate result, possibly because of lack of sufficiently close personal attention to patients. Of 24 hypertensive persons so treated, 12 have died of the disease and only two care to go on with the injections after the passage of a year; symptoms were too unpleasant and results too unimpressive for the others. At first, for two to ten months, the majority of our patients were improved symptomatically much as Ayman described for almost any new form of treatment.

Our early enthusiasm for hexamethonium has been lost, at least as a form of treatment for general use. It is suitable for only a few patients, and fails in those with renal insufficiency who most need help. It does lower arterial pressure, but often to excess and then may lead to serious circulatory complications; even without this, the side effects are unpleasant. If it is to be used effectively, so much care is required that the program is too unwieldy for general use.

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Discoid Eczema of the Hands

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•In general it is probable that round or oval, rather defined groups of fine vesicles (or crusting that results from former vesicular eruption) recurring in the same location like a "fixed drug eruption" is a particular type of eruption deserving a distinct name. The morphological features and the clinical course of repeated recurrences, always in round or oval areas, seem to make the term "discoid eczema of the hands" an appropriate one for the disease.

A feature that distinguishes discoid eczema of the hands from infectious dermatologic conditions which it most closely resembles clinically, is the response of the disease to dietary therapy. A simple elimination diet was used with good effect in 20 cases of the disease reported upon herein.

NOT INFREQUENTLY observed in dermatologic practice is an eczematoid disease of the skin of the hands which has so many features distinguishing it from other dermal eruptions that it may be considered an entity and as such to deserve a name.

One of the peculiarities of this particular disease of the hands is its amenability to control by simple dietary restriction. Other characteristics that set it apart are the appearance and distribution of the lesions, and morphologic features. The lesions, almost always confined to the hands, are round or oval patches of fine superficial vesicles. The individual lesions making up the discoid patches are microscopic vesicles that develop between the prickle cells of the epiderm. Since vesicular eruption is most prominent at the perimeter of each group of vesicles, the patches appear as heavily margined discs. The lesions wax and wane in the same locations spontaneously. Improvement may take place without external treatment and there may be recurrence despite assiduous prosecution of local therapy. Rarely are such lesions associated with eczema of other parts of the body. Conversely, atopic or allergic eczema may be distributed extensively over the flexural surfaces of the extremities yet not involve the hands.

The term *discoid eczema of the hands* would seem to be an apt one for this disease entity in view of the gross appearance of the lesions, the morphologic features and the fact that they are almost always confined to the hands.

It was apparently this entity that was differentiated and described by Pollitzer,[6] in 1912, as "recurrent eczematoid affection of the hands." Gross[4] included this condition in a clinical description of "nummular eczema" but indicated that the lesions were associated with dry skin and that they appeared on the forearms, arms, legs, thighs, shoulders and the dorsa of hands, fingers and feet.

In the author's experience dry skin is not an associated condition and the lesions are predominantly on the palms and the flexor surfaces of the fingers. (One patient had lesions on the soles of the feet in addition to those on the hands.)

An oddity of discoid eczema of the hands is that sometimes what appears to be a single round or oval patch extends across two, three or even four fingers as though there were no separation between the fingers.

The most notable feature of clinical distinction between discoid eczema and other non-infectious lesions of the hands is that the latter are not grouped in round or oval patches. Other lesions of the hands that are grouped in patches similar in appearance to those of discoid eczema are usually caused by fungus or bacterial infection and do not heal without rather specific fungicidal or bactericidal therapy. Conversely, as was previously noted, whereas topical therapy has little beneficial effect in discoid eczema of the hands, dietary therapy usually is effective.

To determine the efficacy of dietary treatment, 40 patients were selected on the basis of the clinical appearance of the lesions on the hands. The treatment of all patients included hand soaks in diluted liquor aluminum acetate four times daily and the local use of a bland non-stimulating ointment to offset overdryness resulting from the use of astringent soaks. Calcium was given intravenously weekly. The patients were instructed to avoid the use of strong soap and hot water on the hands. Local treatment and administration of calcium was discontinued as soon as the lesions cleared, often in as little as three weeks. All of them were put on an elimination diet.

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This diet excluded (1) all kinds of nuts, (2) onions whether cooked or uncooked or in combination with other foods, (3) tomatoes in any form, (4) chocolate, (5) coffee, and (6) pork in any form, including bacon, ham or lard. Such restrictions did not deplete the general diet seriously. These foods were selected because they are items known to be frequent producers of symptoms in persons who are sensitive to foods. Also they are of less importance to the general nutrition than are many foods. The elimination plan was very similar to one of the methods used by Livingood and Pillsbury[5] in determining specific food sensitivity in their study of "various types of eczematous dermatitis."

Once clinical improvement was obtained by the use of local, systemic and dietary treatment, all medication was discontinued and the foods that had been eliminated were restored to the diet, one at a time. Only when no reaction occurred after a five-day trial period was a food considered safe for inclusion as a usual part of the patient's diet again. An effort was made to include during its trial period a little more of the food being tested than was normally eaten. Observations were made during these tests for the recurrence of new, fine vesicles on the hands. Usually such new eruptions came in the first two days of the trial period of a food. Recurrences of vesicles always came in the old inflamed areas. When there was recurrence in response to deliberate attempts to bring it about by adding one of the test foods, the clearing of the lesions was hastened by again using local soaking in dilute liquor aluminum acetate and by giving calcium intravenously.

This kind of testing served not only to identify the specific offending food, but it served admirably as a control on the diagnosis. Not only was improvement obtained by elimination of selected foods from the diet but eczema of the specific type originally present was reproduced by adding foods of the special elimination group back to the general diet.

Three of the 40 patients originally selected were later shown to have contact dermatitis. They had been mistakenly included because the lesions tended to occur in limited areas.

Of the other 37 remaining, 29 were women and 8 were men. There were no children. Seven of the group were unmarried. Twenty of the patients were between 20 and 40 years of age. Two were women 70 years old.

Twenty of the 37 patients completed the trials of the six foods until all the foods were tested separately by a five-day trial. Two showed sensitivity to nuts, five to onions, one to tomatoes, ten to chocolate, four to coffee, and two to pork. Four patients had sensitivity reaction—new lesions developed—to two of the six foods for which tests were made.

One of the 37 patients had lesions on the soles similar to the palmar lesions described. He had lesions on the hands also. The plantar lesions improved when the lesions on the hands improved, and they became worse when the specific food not tolerated was restored to the diet. (This is the only case ever observed by the author in which lesions of this kind appeared on the soles.)

CASE REPORTS

The following case reports are typical of discoid eczema of the hands:

Case 1: A housewife 30 years of age was first observed November 15, 1951, with complaint of an eruption on the right thumb and on the third and fourth fingers recurrently for five months. Various salves had been used locally as well as potassium permanganate soaks. Upon examination, two defined, scaly, red, swollen lesions were observed on the right thumb and there were defined lesions on the opposing surfaces of the right third and fourth fingers. There were no lesions on the left hand or on the rest of the body. Treatment included the elimination of nuts, onions, tomatoes, chocolate, coffee and pork from the diet. A week later there was slight improvement and at the end of five weeks the lesions on the fingers of the right hand were entirely faded. Nuts and then coffee were added to the diet without the development of new lesions, but two days after pork was added, fine vesicles appeared on the third and fourth fingers where the original lesions had been. Tomatoes then were tried for five days without recurrence of hand lesions, and five months after the diet was started, the patient was eating all foods except pork and the hands were free of lesions.

Case 2: A housewife 32 years of age had had recurrent attacks over a 30-month period of a single group of red lesions on the left palm at the base of the fourth finger. The disease had begun with the development of vesicles on the fourth finger, pyoderma quickly following. When first observed the patient had a single, red, defined oval area on the palm near the base of the fourth finger. It measured 3 cm. in its greatest diameter. Treatment included the use of four daily soaks in liquor aluminum acetate diluted one part in twelve parts of cool water. Calcium was given intravenously weekly. Nuts, onions, tomatoes, chocolate, coffee and pork were removed from the diet. After the patch of eczema had cleared and local and intravenous therapy had been discontinued and the eliminated foods were being added one at a time to the diet, a distinct, tender, red, swollen and vesicular eruption appeared at the site of the original eczematous patch of the left palm within 24 hours after coffee had been restored to the diet. Later, after this eruption had cleared and pork had been tried without causing any eruption, the left palmar lesion recurred when chocolate was added to the diet. After three months the patient

was free of lesions and from then on remained free of them with no other therapy than avoidance of coffee and chocolate.

DISCUSSION

The importance of diet selection in the treatment of atopic dermatitis of the hands was urgently suggested by Rowe's[7] report of 80 cases of skin disease of the hands controlled by diet eliminations. He also pointed out that occupations such as housework helped to activate a potential sensitization to foods. This may be a determining factor in locating the site of the skin lesions. Contact of the hands with industrial irritants, for example, may lead to lesions there even though the fundamental cause is food intolerances. Rowe[8] also recognized that food scratch tests and intradermal tests are not dependable. He stated, "Since skin tests with food allergens often are negative to allergic foods or give false positive reactions not associated with clinical allergy the elimination diets are usually indicated for the study of the suspected food allergy."

Pollitzer,[6] in a discussion of "recurrent eczematoid affections of the hands," called attention to round, sharply defined groups of aggregate vesicles on the dorsal surfaces of the hands. He said that individual patches varied from 2 to 3 centimeters in diameter and that even though these patches were sharply margined, vesicles covered the affected areas uniformly.

Later, Chipman,[3] writing on differentiation of sharply outlined eczematous lesions of all parts of the body, noted that although the classic patch of eczema is vague in outline, there are numerous eczematoid eruptions which are sharply defined and difficult to classify.

Data was presented in 1942 by Ayres and Anderson[1] to show that a random diagnosis of fungous infection of the hand stands an 88 per cent chance of being wrong. They said that an allergic reaction due to foods may persist on the hands for long periods. They also noted that eruptions of the hands constitute one of the most difficult diagnostic problems in the entire field of dermatology.

As far back as 1912, Bulkley[2] recommended a basic diet for use in the treatment of skin diseases. The diet consisted only of boiled rice, bread, butter and water for five days. Such a controlled diet is said to have cleared Bulkley's own recurrent vesicular eruption of the hands on more than one occasion.

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Topical Use of Cortisone in Urology

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• Cortisone was instilled into the bladder in the treatment of interstitial cystitis and contracted bladder, trigonitis and urethritis in females, nonspecific urethritis in males, and inflammation of the wall of the bladder. In infectious cases the hormonal therapy was used after antibacterial measures had failed. Improvement occurred quickly in most cases soon after cortisone therapy was given. In a few cases of interstitial cystitis and contracted bladder the relief obtained was inadequate and it was necessary to carry out overdistention procedures under visualization. When that was done, however, it was noted that the condition of the bladder was improved as compared with the conditions usually observed in cases in which cortisone treatment is not given before the procedure.

Results of tests of the blood during therapy indicated that the benefits of the treatment were not owing to systemic absorption of cortisone.

TOPICAL APPLICATION of cortisone acetate has been used by the authors in treatment of interstitial cystitis including contracted bladder, inflammation of the wall of the bladder, trigonitis and urethritis in females, and non-specific urethritis in males.

To determine whether or not any of the results of topical therapy might be owing to systemic absorption of cortisone, study was made of the eosinophil content of the blood of patients receiving topical therapy. The eosinophil content was determined at hourly intervals for six hours after treatment, and no significant change was noted. It was concluded that if there was systemic absorption it was so slight that it could not be considered a factor in results.

In all cases in which there were indications of infectious disease of the urinary tract, attempt was made to clear it by use of antibacterial drugs, but if infection persisted despite such measures, cortisone therapy was carried out concomitantly with them.

The hormone, suspended in saline solution, was instilled into the bladder through a No. 12 or 14 (French) urethral catheter and after each instillation a spurt of air was blown through the catheter to make sure none of the mixture remained in the tubing.

The dosage used was 125 mg. of cortisone in 5 cc. of saline solution and the schedule of infusion was twice daily for two or three days for patients treated in the hospital and once a day for two or three days for those treated in the office. After that in most cases the hormone was administered three times weekly for one to two weeks and then discontinued. For some patients with interstitial cystitis and contracted bladders, cortisone therapy was repeated at intervals. For example, one patient was kept comfortable and the bladder capacity normal with one treatment every six weeks consisting of overdistending the bladder under local anesthesia, by filling it with sterile water, then emptying it and instilling cortisone.

Before cortisone was used topically in the manner described, patients who had interstitial cystitis or contracted bladder with clear urine, but with pollakiuria, urgency, nocturia and pain when the bladder was distended, were given general anesthesia in a hospital and overdistention was carried out under vision. When the bleeding lesions usually present in the distensible portion of the bladder in interstitial cystitis were located, fulguration was carried out. This procedure had to be repeated from time to time as symptoms indicated. Often after overdistention of a contracted bladder, multiple areas of petechial hemorrhage were noted throughout the organ. Cortisone infusion as an office procedure now has replaced hospitalization in most cases, but in a few cases in which symptoms were not completely relieved after six or more topical treatments with the hormone, the patients were hospitalized and distention under vision was carried out. It was noted that petechial hemorrhages such as were present in patients who had not had cortisone therapy, were absent in these cases. Furthermore, the bladder capacity increased readily on one overdistention and the wall of the bladder seemed to have greater elasticity and to distend much more easily. Resumption of topical cortisone therapy in these cases after the overdistention procedure brought about pronounced clinical improvement.

Females who had urethritis and trigonitis with

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clear urine usually had a decrease in urethral pain and in nocturia and urgency when topical cortisone therapy was given. In cases in which stress incontinence was present, it usually abated.

Men with non-specific urethritis and grossly cloudy urine who had not been benefited by other kinds of treatment showed a pronounced improvement when cortisone was administered. The urethral discharge and other symptoms disappeared in less than 24 hours. The group included one patient with Reiter's syndrome who responded readily to treatment. In treating these patients the solution was injected into the urethral meatus with a blunt-nosed syringe and a penis clamp was then applied for a few minutes.

The group of patients with inflammation and bullous edema of the wall of the bladder and cloudy urine had had antibacterial therapy of all kinds without benefit. Several had indwelling catheters and in those cases the catheter was kept clamped for a half hour or more after the cortisone was instilled. Whereas with antibacterial therapy the urine of patients in this group remained foul, cloudy and severely infected, it became grossly clear and free of infection in a few days after topical cortisone therapy. Upon cystoscopic examination it was noted that the appearance of the bladder became normal in a surprisingly short time.

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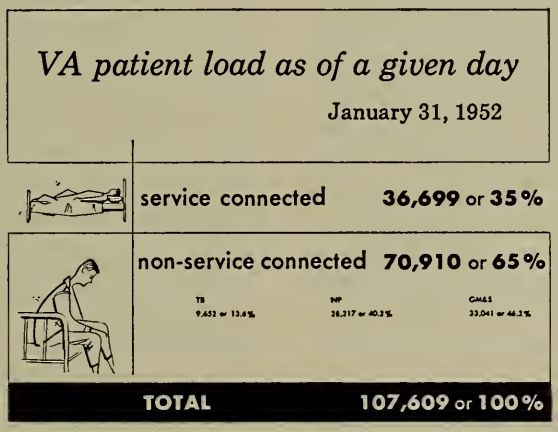
In Viewing the VA Medical Program . . .



While the VA lists its patient load on a given day as 35% service-connected, only the long-range view of admissions and discharges over a year's time gives a truly accurate picture of the service-connected load (only 15.4%). This "discrepancy" appears because the VA's listing of 35% on a daily basis is not affected by the yearly turn-over of patients—the ratio of VA patients remaining to those treated and discharged (1 to 5.1). Over a period of a year, 84.6% of VA patients are treated for disabilities incurred after—and having no relationship to—military service.

The Diagnostic Problem of Cephalalgia

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• *Cephalalgia, a common complaint, often presents both a diagnostic and a therapeutic problem. In a significant number of cases the cause may be traced to allergic sensitivity. "Allergic headache" is no different from other allergic diseases either as to the factors that produce the head pain or as to the specific treatment required. Taking a careful history and carrying out definitive skin testing may lead to diagnosis in cases that otherwise might be considered functional.*

PATIENTS WITH A COMPLAINT of headache have been the object of considerable interest and concern for many years, for although cephalalgia may be a symptom of disease such as hypertension, meningitis or nephritis, in the great majority of cases it cannot be related to an organic condition and the symptom itself is the problem. After decades of common usage, the term *migraine* now encompasses most of this group and the cephalalgia is characterized by periodicity with symptom-free intervals. A variety of other secondary symptoms may occur, but none (except perhaps nausea and vomiting) with significant frequency.

Many investigators who postulate various causes of cephalalgia of the migraine type attempt to apply their beliefs to all cases. Wolff[21] expressed the belief that the pain derived from dilatation of the branches of the external carotid artery, and he advised treatment by psychiatric management with symptomatic support. Alvarez[2] felt that the condition is essentially functional and recommended the same therapeutic approach. Tice[17] attributed the condition to stress and adrenal depletion and felt that supportive measures and psychotherapy were indicated. Horton[11] reported upon a kind of cephalalgia he considered of a different order in that it occurred in brief episodes characterized by hemicrania, unilateral vasodilatation, lacrimation and sweating. The episodes could be induced with injections of histamine, he said, and effectively treated by "histamine desensitization." Later Horton reported upon application of the treatment to a large group of persons with periodic cephalalgia and concluded that the treatment was neither specific nor curative but did have a place among prophylactic measures. The actual existence of the kind of headache described by Horton has been questioned,[18] and Beckman[4] said that "those who attempt to treat migraine through desensitization of the patient to histamine do not understand the fundamental principles of allergy."

Many texts mention a type of cephalalgia that is related to muscular strain and imbalance and that responds to orthopedic management. Reports of clinical observations indicate that there are certain cases in which headache is a manifestation of hypoglycemia and in these cases relief is obtained by management of the underlying disturbance. In some cases migraine is closely related to nasal symptoms and the pain may be described as originating in the sinuses. It is difficult to establish a clear distinction between head pain caused by disease of the sinuses and head pain originating outside the sinuses. Cases in which there is frontal or maxillary involvement with local pain and tenderness fall into the category of sinusitis and are most often so treated unless other symptoms suggest other relationships. It is also rather unsatisfactory to relate acute episodes of pain to infection. Alexander[1] pointed out that often infected sinuses cause neither local pain nor headache.

Since attempts at classification of cases of periodic pain in the head seem only to confuse, it would seem better, until the subject becomes less benighted, to consider the condition as a single entity.

Although the etiologic possibilities in cephalalgia or migraine are many, specific diagnosis often cannot be made. Perhaps the most valuable diagnostic tool is a careful and detailed history which considers every aspect of the symptoms, a thorough analysis of the periodicity and a determination of various precipitating factors.

In some cases the complaints and the pattern of attacks indicate a close relationship to the allergic state. The occurrence of migraine due to hypersensitivity has been known for many years, but it has not received the emphasis which its frequency warrants. As early as 1883 Strumpell[20] referred to migraine as "an exudative process comparable to urticaria and angioneurotic edema." Vaughan[19] was one of the first to report cases of migraine caused by allergic reaction. Miller and Raulston[14] suggested that migraine was a manifestation of anaphylaxis and they

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obtained encouraging results with injections of peptone. Riley[16] made a comprehensive review of reports on the subject of migraine and was impressed by the fact that relatively conservative investigators reported allergic factors in a high proportion of cases. Ball,[3] investigating 1,000 cases of allergic disease, found notation of migraine in the family history in 261 cases. In an analysis of 1,000 cases of cephalalgia, Hersh[10] noted that 537 patients had a diagnosis of rhinitis, and in those cases allergic sensitivity was the most common causative factor. Kennedy[13] described several cases of severe headache which were not only episodic but were accompanied by focal neurological signs, giant urticaria and angioneurotic edema. Crowe[7] reported the case of a young man with episodes of hemicrania, drowsiness, nausea and vomiting. Such episodes could be precipitated by the ingestion of wheat and could be arrested by administration of epinephrin. Goltman[8] reported upon a patient in whom severe hemicrania could be induced by ingestion of wheat and who had an opening in the skull through which the development of cerebral edema during an intentionally induced attack could be observed.

ALLERGENS OTHER THAN FOODS

Although early investigators considered food as the only important allergen in the production of migraine, more recent reports show that any antigenic substance may be incriminated. Feathers and animal hairs are known to play an important part.[5] Failures with changes in diet led Goltman[9] to desensitize patients to pollens and environmental factors, with good results. A case in which migraine was precipitated by an injection of pollen extract was noted by Cooke.[6] Ogden[15] tested and treated patients with a potent extract of house dust with excellent results. He, too, observed that an overdose of the antigen used in treatment could precipitate an attack of migraine.

In an investigation of the allergic factor in migraine, the author made a study of 90 consecutive cases, observed in private practice, in which the patients had problems of cephalalgia. (Not included were patients seen in consultation and advised that the cause of their headache was other than allergic.) Headache was the major symptom in all instances. The location of the pain and the descriptions of the nature of the pain varied widely; there appeared to be no significant incidence of particular site or specific kind. Unvarying hemicrania was present in only 15 cases. Thirty-one of the patients were males and 59 females. The age range was from 4 to 60 years but the majority were between 30 and 50 years of age when first observed. It was difficult to determine precisely the age of onset but it seemed that the headaches began most often at the end of the second decade and the beginning of the third decade of life. Other forms of allergic disease were noted in 67 of 90 patients. Included were rhinitis, asthma, colitis and allergic dermatosis. In 57 cases there was a family history of allergic disease, including migraine. In seven cases the family history of allergic disease was of migraine alone.

Nausea and vomiting, which were complained of by 41 patients, were the most common of the associated symptoms. Twenty-three patients observed nasal blockage as directly related, although this by no means indicated that the pain was localized in a sinus. Twelve complained of photophobia, ten of vertigo and thirteen of scotomata, while only three noted the occurrence of a visual aura preceding the attack. Only one patient observed unilateral flush and sweating as in the condition described by Horton. Clinical relationship of specific excitants to cephalalgia was noted in 12 of the 90 cases reviewed and in nine cases a specific food was identified as the excitant. In nine other cases the pain in the head was either entirely seasonal in type or of perennial type with seasonal exacerbation. Complete skin testing was done in 80 cases, and in the ten cases in which it was not it was so obvious that the allergenic agent was an inhalant that only pollens and environmental materials were investigated. Of the 80 completely tested, none had reaction to foods alone and in none was there more intense reaction to a food than to an inhalant. Only 40 of the completely tested patients had any reaction to foods. Forty reacted only to inhalants. Many of the patients mentioned symptoms of allergic import in connection with the principal complaint of cephalalgia. Seasonal factors were implicated as often as foods, and the results of skin testing also seemed to indicate that allergens other than foods are important factors in the allergic type of cephalalgia.

The frequency with which allergic sensitivities were associated with cephalalgia and the rather high incidence of allergic disease in the family history of patients with principal complaint of pain in the head supports the observation that allergic sensitivity is a factor in some cases of cephalalgia.

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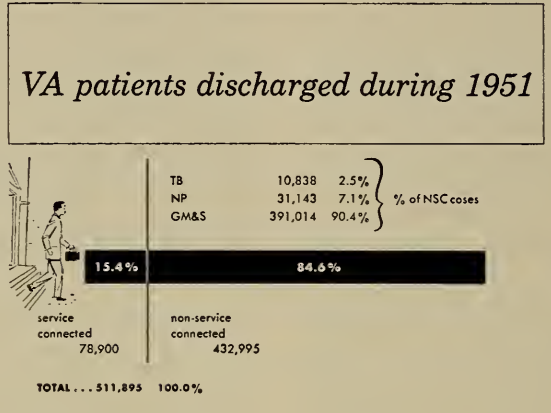
In Viewing the VA Medical Program . . .



Of 511,895 patients discharged from VA hospitals in 1951, only 15.4% were treated for illnesses or injuries incurred as a result of military service. Physicians believe it is unsound to continue authorization of "free" lifetime medical care for those who suffer no mishap while in uniform, while other citizens with no military background must pay their own way.

Should You Form a Group?

CHESTER PORTERFIELD, GEOFFREY MARKS, and BARTON EDGERS, Seattle

• *In this discussion, greatest emphasis has been placed upon the personal factors involved, rather than upon the mechanical aspects of creating and maintaining a group, since it is the personal factors, the authors say, that are the most often overlooked.*

SHOULD YOU FORM A GROUP? "Probably not," we should say, on the basis of the accumulated experience of medical men in partnerships and groups. Since there have always been more failures than successes among such ventures, it would be unfair not to make this initial warning. Actually, however, there is no general answer to this question, for it infers a number of more specific questions, the answer to each being critical in determining success or failure.

The major questions (or tests to be met in forming a group) are the following: How should you organize a group? Which kind of group should you form? With whom should you form a group? How should you finance a group? Where should you form a group? How can you perpetuate a group?

We can undertake herein merely to highlight a few of the most important points involved in each question and to cite some cases that give especially clear-cut demonstrations of the basic principles. First, however, must be stated a workable definition of a group. Dickinson, in his economic and statistical studies for the American Medical Association, considered a group to be any partnership or association of three or more physicians whose practices employ common administrative facilities. These groups were subclassified into *general* groups and *specialist* groups, the one made up entirely of general practitioners, and the other of physicians either in the same or in related specialty fields. Dickinson also recognized *mixed* groups in which there are both general and specialized practitioners. However, this division by type of practice is too general to help greatly in analysis. Therefore, we will consider in addition to the above, two main lines of functional classification. These are the *independent* and the *integrated* group.

In the *independent* group, each member exclusively serves his own clientele, with the group's organization exclusively on the "housekeeping" level. Its advantages over solo practice are those of combined purchasing power for facilities, staff and services; it satisfies the gregarious instinct while preserving the practitioner's feeling of sole proprietorship in his practice.

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In the *integrated* group, all patients are considered and treated as patients of the group, rather than of the individual members thereof. In both general and specialist groups, the common factor is the merging of services by individual physicians to the greater advantage of their patients than is possible through their separate efforts. Where members are all general practitioners or pursuing a single specialty (an additional cross-classification, the *homogeneous* group) this takes the form of interchangeable handling and service for all the patients, on the basis of providing them greater protection. Where the physicians follow related specialties (another cross-classification, the *heterogeneous* group) this takes the form of diagnostic-therapy clinics, of which most large groups are examples.

We will thus consider four significant functional classifications—independent-homogeneous, independent-heterogeneous, integrated-homogeneous, and integrated-heterogeneous, as we look for answers to our six key questions.

1. *How should you organize a group?*

The various legal instruments available include the partnership, the joint venture (or limited partnership), and the association or corporation. The independent group, where each maintains his own practice, may well be effectively set up through a joint venture or corporation, the instrument of organization serving primarily as a housekeeping agency, thus limiting the professional and financial liability of each member to his own actions and the amount of his investment.

The integrated group, with each member accepting his share of the professional liability of all the members, usually takes the form of the true partnership. Here each member acknowledges responsibility for the actions of all his partners, and for their financial involvements as well. While this is only proper

from the professional viewpoint, it can cause serious difficulties when members' financial interests are thus interrelated, especially if one or several of them are engaged in extensive outside activities.

The use of the "partnership entity" theory in large groups has advantages in assuring the continuity of the organization and to some extent limiting the financial liability of each member, and in avoiding the necessity of reforming the partnership with each change in membership. With very large groups a corporation can be a most convenient device for holding the physical assets, since the ownership of its shares can generally be more easily transferred than a partnership interest in such assets (especially where the wives of partners are involved through community-property law).

The choice of any particular form of organization, or combination of the above, must depend on the basic needs and goals of the group's members, and generally the simplest legal framework that will meet these needs is the best. At the same time, the legal implications of the structure selected must be fully understood; otherwise trouble is almost a certainty. When tax questions are involved, both written agreements and actions of the group become subject to scrutiny, and courts often accept whichever interpretation creates the heavier tax liability.

Considering the general partnership as the customary basis of a group, its organizers should formulate an agreement which states and protects their mutual desires and purposes. All major eventualities must be provided for by statements of general intent and definition along the following outline: (a) purpose and duration; (b) duties and responsibilities; (c) ownership of assets; (d) definition of income; (e) definition of expense; (f) division of net income; (g) status and rights during partial or total disability or military service; (h) termination—voluntary, disability, military service, retirement or death; (i) termination rights and mechanisms; (j) admission of new partners; (k) arbitration medium and agency; and (l) special provisions, including rights to disburse funds, to undertake personal or third-party obligations, and the like.

The use of such a check-list of subjects to be covered is essential in assuring that no important area of intention is overlooked. By themselves, these points merely provide an outline or a guide to be used in reaching a sound initial understanding, particularly on matters involving death or future disagreement. They are certainly no substitute for the function of legal counsel in stating these intentions in proper terms, but their application, in the hands of advisors experienced in medical administrative problems, is essential to a sound beginning. Once put into operation, the agreement must be observed sincerely, and where changing circumstances require a different course of action, it should be provided for by amendment or addition to the agreement itself.

In addition to the legal aspects of forming a group, there must also be considered the operative organization. The approach chosen depends in part upon the size of the group and the degree of administrative complexity, in part upon the desire of the group members to concern themselves with such matters, and in part upon seniority.

In small groups, each member may satisfactorily be assigned a certain area of responsibility, preferably one in which he shows a particular interest and ability. This is especially important in directing the staff, where there must be a recognized chain of responsibility and authority. Other functions, such as financial supervision, building and equipment planning, and coordinating the purchase of supplies, should be similarly assigned, either on a permanent or rotating basis.

In groups where one man is much the senior in status or reputation, he is too often found to be acting not only in all these capacities, but also to be directing policy and making decisions without regard for the wishes or suggestions of his colleagues. While such a man should exercise a powerful influence, he may well destroy the future strength of the group by his one-man rule, since his associates will have had no chance to gain experience through the sharing of responsibility.

When should a group employ a "layman" specialist business manager? Among larger groups, the size of the staff and the complexity of organization require far more time, attention and administrative training than can be provided by members of the groups without seriously hampering their professional functions, and the business manager is an essential. However, the business manager cannot operate effectively unless the members of the group are willing to give up certain areas of their own authority to a "layman" management specialist whose qualifications command a salary that will enforce his status.

Up to around fourteen members, a group can theoretically meet effectively in working out policy decisions and operating procedures, with all members participating. Beyond that number, they should recognize that the "committee of the whole" becomes ineffective, and organize themselves in departmental units for the primary stages of determining policy, with operating committees cutting across departmental lines to direct the detailed formulation and application of procedures. These committees must work closely with the business manager in setting up major programs for the decision of the entire group, then must approve the specific programs developed by the manager, and provide general supervision of his application of these programs. Whatever the size

of the group, however simple or elaborate its organization, above everything, all its members must meet together conscientiously and regularly.

2. *Which kind of group should you form?*

(a) *Homogeneous?* General practice lends itself most readily to the homogeneous group, together with those specialties where the need for availability to patients closely approaches general practice—obstetrics being probably the most readily apparent example. The main limitation is to the number of men who can form an effective team; beyond three or four (the optimum group if all are serving the same set of patients) the organization tends to break down into sub-groups or essentially individual practices. The combined factors of population-physician density and market area are important in forming any group, and particularly the homogeneous specialty group. While homogeneous general-practice groups are probably needed in many small- and medium-sized communities, most classes of specialists can find little justification for such organization except in the larger metropolitan centers or where a large market area is extremely under-supplied in their particular specialty.

(b) *Heterogeneous?* The field for the heterogeneous group is obviously much broader than for the homogeneous; as to size, the deciding factor, aside from chance elements such as attrition, is usually that of how complete a service is justified by these same population factors. Basically, the heterogeneous group becomes practicable at around 50,000 market-area population, provided there is not already operative an adequate number and balanced ratio of general and specialized practitioners in that area.

Naturally, these are generalizations, to be considered not as limiting rules, but as probable influences on the success of a particular group project. The "better mouse-trap" principle applies so strongly in the service professions such as medicine that outstandingly successful groups have flourished and will undoubtedly continue to do so where these criteria might have predicted failure.

(c) *Independent?* The basic reason for forming an independent group, in which each physician pursues his own practice and there is a minimal interchange of patients, is to permit the members to share the use of more equipment, services and facilities than they could afford or use efficiently as individuals. Additional motives include investment in building and land, the convenience of vacation coverage, and the availability of informal consultation.

Only if there is a recognized shortage of such facilities in the community as the group might jointly afford does there appear real justification for the independent group. The other motives cited are not in themselves adequate. The commonest causes of failure of independent groups of general practitioners stem from differences in personality and approach among the members. Among specialists, the independent group usually carries the onus of integrated operation (at least in the eyes of outsiders) without the organization which would give it the advantages of true integration both in financial return and in more satisfactory relations with patients.

(d) *Integrated?* We consider this approach to be the best for meeting today's medical needs—when such needs can be met through group practice. Whatever the specialties or other conditions, men going into such a group must accept the basic surrender of their exclusive rights to "their" patients, and accept the responsibility for each other's actions as well.

In a homogeneous group, this amounts to interchangeability of practitioners; each patient is customarily seen in rotation by each of the members, in order that no emergency will find that patient without the best possible care. This approach is probably most feasible in general practice, and in such specialties as obstetrics and pediatrics; beyond the three-member basic group it is not too practical unless the members are divided into teams for the handling of assigned patients.

In a heterogeneous group, integration implies the establishment of a sequential approach to new patients, based on a group nucleus of an internist-surgeon team. The minimum membership is logically two internists (each with some sub-specialization within his field) and two general surgeons. This will permit sufficient flexibility in consultation and surgical assistance in most instances, and protects the group from the probable dissolution which would result from the loss of its only internist or surgeon.

Beyond this nucleus logical expansion is most feasible through adding men in such "mixed" medical-surgical specialties as obstetrics-gynecology and urology, with the more restricted specialties being added as required. As the group expands, additional internists are needed to preserve the basic balance; however, other specialties, such as obstetrics-gynecology, create new points of influx whereby patients enter the group, through direct referrals by patients of the specialists. While it would be injudicious to attempt forcing each new obstetrical patient through the normal chain of referral, the obstetrician must at least make his new patients aware of the group's total approach, so that they may be directed to the internist for future non-obstetrical services.

Unless all patients, whatever their point of entry into the group, understand this basic approach, their efforts at choosing their own specialist — which essentially means self-diagnosis — will lead them

through an irritating and expensive search for the answer to their health problems. Unfortunately, the tendency among patients is to resent the "diagnostic run-around" they experience when this happens, and to lay the blame upon the group. From misunderstandings of this kind arise the major patient-relations and administrative frictions which endanger the success of the integrated group and which the members must most rigorously avoid.

3. *With whom should you form a group?*

Assuming that a physician's professional qualifications are adequate, the major question to be determined is one of personality—the extent to which he is able to work harmoniously with the other members. In the independent group, this becomes a matter of his general compatibility, the characteristics one would seek in a good neighbor. In the integrated group, the question is much more intricate, since each member must sacrifice both his independence and his exclusive right in "his" patients. While most physicians will acknowledge the advantages of interchangeability and shared responsibilities in treating patients, they often act quite differently when faced with the reality of their own powerful emotional attachment to those patients. They may even be unable to break the ties, which are the stronger for being hidden well below the conscious level.

How can this emotional characteristic of physicians be prevented from blocking the functioning of an integrated group? The strength of the attachment can usually be tested during a relatively short period of observation under the stresses of dealing with patients on a mutual basis—a paramount justification for requiring a trial association period either in forming a new group or taking a new member into an established group. Fortunately, through patient and persistent guidance, most physicians can be brought to modify these feelings toward patients, and to achieve a genuine acceptance of the shared relationship within the group; those who cannot should not attempt to remain in group practice.

Since the interpersonal relationships within a group are important, the role played by the doctor's wife is also important. Wives have frequently been blamed (sometimes with cause) for breaking up groups and partnerships. Whatever the reasons given, the most frequent cause is jealousy—usually based on the husband's status in, and income from, the group. It is therefore important to give a prospective member's wife ample opportunity not only to find out in advance whether she likes the community and all of its living, school and social facilities, but to understand precisely what the group is offering her husband in future prospects as well as present income and obligations. Straightforward and realistic discussion is essential to avoid building up false hopes and premature expectations, and especially to avoid the wifely "protective anxiety" which expresses itself as nagging and can turn a young physician against his associates.

Nor can the wife's importance when her husband dies or retires be ignored, even at the earlier time when he joins the group. The emphasis herein on setting up a reasonable procedure for liquidating a partner's interest within the partnership agreement is primarily dictated by consideration of the importance of a wife's position. A wife must know what will be done to protect her as well as the group should her husband die. The pleasant congenial wife who becomes the grasping, demanding widow must be prevented from destroying the partnership through her demands for immediate liquidation. This is an unpleasant eventuality to consider, but it must be guarded against.

4. *How should you finance a group?*

Undoubtedly this question is the first one of interest to physicians approaching the question of forming a group, and the one to which they are generally most impatient to have an answer. It is also the most difficult to outline in general terms since any answer given must be related to the specific factors involved in the given situation, and each factor interacts with all the others.

If there are existing adequate office facilities which can be adapted for the use of the group, perhaps through expansion of offices currently in use by one or more of the prospective members, then the immediate housing problem is not serious. The question is one of exercising ingenuity in modifying and adapting those facilities at moderate cost. However, if the space available is in a medical office building or center that is already occupied by a number of other physicians, the savings achieved in construction cost may be outweighed by the disadvantages in attempting to establish the new organization in the face of strong competition and sometimes direct antagonism. In circumstances where such antagonism is not likely to develop, we are inclined to suggest that a new group "start small," and that it limit its initial financial obligations through renting such space during the period it is testing out the ability of its nucleus of members to work well together.

The second stage for such a group, and the first stage where existing facilities cannot be used, is generally the planning and construction of the group's own building. Here, to reduce the initial investment required, the members and their architect should plan for the future growth of the group to the size desired by adopting a design which permits building additional units as they are required. This demands a well-thought-out program, and a clear statement of the eventual goal to permit the architect

to work effectively. (In our experience, where such projects have not finally met the needs of the enlarged group, it has been because the architect was not permitted to develop his ideas upon any needs beyond those of the immediate present.) Too many groups now find themselves hampered by the results of well-intentioned but short-sighted building programs, forcing them to operate in quarters both inefficient and inconvenient.

The financial requirements of this stage are relatively large so far as the purchase of land and the cost of the architect's plans are concerned, since they must obviously be adequate for the future. But the cost of building and equipment, the major factor, is minimized to current needs, and the dangerous inclination to bring in new men without the most careful consideration, in order to fill the space, is averted.

The amount of capital necessary to approach the first building stage again depends upon circumstances. Even before this, the members of the group must determine their basic office operating overhead, estimate conservatively what portion of it can be met initially from the existing practices (if any) and allocate sufficient funds to meet that overhead for at least three months and preferably for six. (They must also remember to allow for their own personal and living expenses during the first six months.) The remaining capital available can then be applied to the purchase of land, the construction of the building, and the purchase of equipment. It would be ideal if the members of the new group could together meet this entire initial cost in cash—but we seldom find such an ideal, particularly among young physicians. If the group can mobilize around 50 per cent of the capital required, the remainder probably can be borrowed at low interest and on a long-term basis from one of the major life insurance companies that are investing in many such professional building projects. The smaller the proportion of the required capital the group can put up, the higher will become the interest rates they must pay and the shorter the term of repayment demanded.

It quite often happens that one member of a group already owns an office building or other complete facilities, or is able to supply most of the necessary capital initially required. If he owns the facilities, it is usually safer, in the early stages of forming the group, for the group to pay him rental for the use of his space and equipment on a basis sufficient to cover its depreciation and carrying charges, with an option to purchase and take over title at the book value when there is a reasonable assurance of the group's future. The other members then contract by personal notes drawn to him to pay him their individual shares or they borrow the money elsewhere on commercial loans and pay the original owner in a lump sum. The end result should be (if the group is to operate on a basis of equality in decision) that each member owns and shares equally in its assets.

Sometimes, for purposes of financial stability, convenience of admitting new members at a later date, or limiting individual liability, the members of a group will set up an association, a joint venture, or a corporation (profit or non-profit) to act as their "housekeeping" instrument, with their operating partnership paying a rental sufficient to cover all operating costs and carrying charges, or with the individual physicians nominally acting as employees of the association. No general recommendations can be made as to any of these particular courses of action, since their advantages and disadvantages to each individual group must be weighed not only in the light of the immediate financial problems but of that group's long-range goals and intentions, and of the restrictions and limitations placed upon each instrument by federal and state laws, including present and anticipated tax programs. No group should proceed without a full exploration of the facts and future probabilities by the management, tax, and legal counsel of the group, working together. Many are the disappointments and losses suffered by physicians through the dissolution of groups and through unintended financial and tax obligations. Some of the largest and most prominent groups in the country have suffered severely as the result of the tendency of physicians to forget that they are laymen in this field.

5. *Where should you form a group?*

Any new group of physicians should meet a real need of the particular community which the members have chosen. It can either be a basic need for medical care arising from an inadequate number of physicians in that area, or the supplying of a higher level of specialized service than is already available in the community. Fully as important as the present physician-population ratio and characteristics of the community are the growth trends which appear to be in operation. These include not only the obvious questions of organized developments (housing, shopping centers, etc.) and transportation facilities, but the age level, racial composition, and income sources of the present population and their probable future direction. Much of this information may be obtained from local civic groups, from the medical societies, and from population studies by various government agencies.*

Finally, the community should provide social, cultural and educational satisfactions for the physi-

*By the time this reaches publication, the monumental study of physician distribution directed by Dr. Frank G. Kickinson should be available to interested readers. This study, published as Bulletin 94 and 94A of the Bureau of Medical Economic Research, American Medical Association, will provide a detailed analysis of the physician-population ratio in every medical trading area in the United States.

cian and his family. Here again, the physician's wife and children must be considered, and the wife brought into the investigation so that she may share in the decision which will greatly affect her future happiness.

6. *How can you perpetuate a group?*

A related question might be, *Why* should you perpetuate a group? Among the most frequent and valid motives for perpetnation are the following: Maintaining medical service to the community; "immortalizing" the founder's special skills by his disciples and successors; providing for the retirement estate.

In maintaining medical service of high quality, the first requirement is the creation of a sympathetic *group* personality, so that the loyal patient following may remain with the group as its older members retire. The senior men usually have been most successful in building patient loyalty, as through the years experience has taught them effective ways of making patients understand and appreciate their personal interest. They must, then, in bringing new members into the group, find some means of endowing them with this human wisdom so that loyal patients will continue to receive the sympathetic service which will help to retain them for the group.

The first mistake to avoid in bringing new members into an established group (to begin as junior associates) is to wait too long before beginning an active program of recruiting. For example, suppose the senior internist in a group suddenly becomes aware at age 60 or 65 that he should begin turning over some of his work to a younger man, and brings into the group as his junior a recently certified internist, aged 30. Their methods are different, their approach is different, they can hardly even be said to speak the same language. The younger man's recent intensive technical training and often exclusively institutional background make it even more certain that the two will find little in common. The senior is seemingly out of date in his medicine; perhaps he has discarded and forgotten much of the technical and theoretical knowledge which his junior has but recently learned. Even more important, the senior has developed his practical techniques of human relations over so long a period of experiment and adaptation that he cannot recognize there was a time when he didn't know them, and so he cannot understand his junior's real difficulties in dealing with patients as people.

New associates should be brought into a group and their orientation begun before the senior men have passed the age of 50, so that the transfer of the heavy work load can begin around the time when most physicians are at the peak of their capacity, and so that the age-background differential is not too great to permit an effective teacher-student relationship. In his indoctrination, the senior must not only recognize the differences in knowledge and experience, but accept his duty actively to overcome them.

Thus, in a properly maintained sequence of group membership, as the original senior member approaches retirement age, his junior will be at peak capacity and will be starting the indoctrination of a third man of similar age differential. It is recognized, of course, that the difficulties now being experienced by many established groups in maintaining this membership cycle have been the unfortunate results of their inability, owing to the demands of military service and other attrition, to bring in and keep with the group those younger men they have known they needed. In such instances, as younger men who have completed their military service now become available, the seniors find themselves in the difficult position of the senior internist described above. While the situation is far from ideal, it can be surmounted and the continuity of the group preserved if both seniors and juniors will frankly recognize the problems presented, and make it their mutual aim to solve them. Such a frank and realistic approach will go a long way toward avoiding the frictions and misunderstandings which would otherwise develop.

Personal pride in the founding of a group and in the "immortalizing" of the founder's name can often lead a senior man into an extreme insistence upon continuing his activity long after he has in reality ceased effective practice. This may become a highly discouraging deterrent upon the younger men in the group. Yet, as a personal symbol, he may at the same time provide a strongly humanizing factor in the eyes of patients, who gain in assurance and confidence from the comforting thought that the well-loved "old doctor" is still there to watch over his successors. We have seen many groups where the use of the founder's name and his occasional appearances after his retirement have proved extremely helpful; at the same time we have seen that the founder of a group can best serve his own goals (of investment as well as pride) by building an active organization which can operate well without him.

Where the founder of a group has built it to success through his own outstanding innovations in his field, and is recognized as a creative pioneer through his development of special skills and techniques or the establishment and application of superior new methods of therapy, he has more than personal justification in desiring to perpetuate his work. In part, his responsibility to medicine as a whole is fulfilled by his selecting and training worthy associates to carry on his work within his group, a similar but more intensive process than the customary indoc-

trination of associates. In the larger sense, he must augment this personal program by accepting a greater number of associates than are necessary for his own group's needs, with the expectation that most of them should and will leave the group to practice elsewhere, thus to aid in the greater dissemination and availability of his paramount skills.

A strong factor in persuading men to form and join groups has always been the promise they make possible of building up tangible asset values that can readily be realized in cash upon their retirement, or paid to their heirs upon their death. This contrasts strongly with the individual practice, whose "goodwill" or intangible value evaporates almost immediately upon the retirement or death of the physician, whose accounts receivable from patients become difficult or often impossible to collect, and whose facilities and equipment seldom bring more than a "second-hand" price. Membership in a group is thus often referred to as a "physician's social security" and it is important in developing the program for perpetuating the group that this goal be kept always in mind.

Two particular points must be considered, both in formulating the original group agreement and in its application as new members are invited into association. The first is that the terms on which the new physician may buy his share of the group's assets (after the customary trial association period) must not be made too stringent; most young physicians at that particular stage in their careers are in the throes of establishing themselves and their families on a proper living scale, and a schedule that crowds payments to the group into too brief a period may not only demand considerable sacrifices (extending the penury of internship and residency) but might also appear so discouraging as to outweigh the remote future returns on their investment. Important in this respect is the method of valuation set up for the group's assets to determine the amount of investment required. Customarily the most generally equitable basis for all parties concerned is the application of the book (or depreciated) value of assets to determining exact amount of the share to be purchased, with the occasional exception of using an appraised value in instances where, owing to intensive maintenance and only minor obsolescence, a large proportion of the original valuation has been preserved.

The second point of importance in making the group an effective investment for its members is that the method by which the shares of senior men will be paid out to them upon retirement, or to their estates at death, must be established well in advance, together with an exact procedure for determining the dollar value of those shares. The double goal is to provide them a continuing income over a number of years, and at the same time to avert an excessive immediate demand upon the resources of the remaining partners. A reasonable program for such payments must be set up in the initial group agreement, subject to modification as conditions change over the years, but still meeting these two requirements.

Further assurances to perpetuating the group can be provided by specific retirement provisions, which will also allow for optional retirement before a compulsory retirement age. This is indeed a delicate subject to introduce into an existing group of long standing, and in such instances practicality and efficiency may have to be sacrificed to some degree. Few senior men will face directly the question whether they are making as effective use of the facilities they are occupying and the overhead they are incurring as a younger member might, and this attitude often prevents groups from bringing in new men at a time when they are most needed. The establishment of an emeritus status for such senior men has been found helpful by a number of groups, and this approach also helps extend the value of their reputations beyond the date of actual retirement.

For a new group, the problems of establishing and building up the group quite naturally loom much larger in the members' minds than its continuation at the eventual date of their retirement. With all the external factors which could affect or alter their plans, why should they attempt to project them so far into the future? The answer is that only by such advance development of their intentions will they assure themselves of not losing sight of their long-range goals, and be able to direct their policies constructively toward them.

Physicians in Major Disaster

W. DALTON DAVIS, M.D., San Francisco

PLANNING DONE NOW on civil defense programs and procedures can greatly reduce the effects of any major disaster that might result from enemy attack or from fires, earthquakes, tornadoes or floods. Should disaster come, the success of the Medical and Health Division of California Civil Defense would depend upon the preparedness and participation of all medically trained persons and of the existing medical and hospital organizations. Every physician and hospital in this state would be affected by a major attack. Unless planning is done now to make the best possible use of them, there will not be a sufficient number of professional people or of hospital beds to meet the needs that would come from such a disaster. An organization and a clear understanding of what is expected of each physician are essential.

During the first few hours the greatest need for physicians and nurses would be in first-aid stations. The successful operation of first-aid stations, located near the periphery of the disaster, would depend upon the ability of the workers to face such a devastation calmly and with sound judgment. Physicians probably would have to deal with surgical, medical, obstetrical and psychological problems to the best of their abilities regardless of their specialties.

First, a quick survey of the situation would have to be made, as the nature of treatment would be influenced of course by the number of casualties and the available resources in both personnel and supplies. Consideration would have to be given to many variable factors, among them the availability of suitable accommodations for less severely injured persons at Welfare and Mass Care Centers; fire hazards necessitating relocation of first-aid stations; long delays in transportation facilities for movement to hospitals. Radioactive contamination, water shortage and heat and light failures might also present serious problems.

MEDICAL SUPPLIES

Supplies for the Civil Defense first-aid stations include surgical instruments sufficient for major operation, dressings, plasma and plasma substitutes, antibiotics and other necessary drugs. These supplies have already been packaged and shipped to the various regions and areas. They are to be stored in or near the assembly point of each first-aid station. The weight of the supplies for each first-aid station is approximately 3,000 pounds and will require 500 to 600 cubic feet of space for storage. All the medical supplies and equipment are packed for long term storage so that they will be serviceable whenever needed. Arrangements have been made to rotate the stocks of antibiotics so that supplies are always fresh. (Tetanus antitoxin has not been stockpiled, as the rotation of this serum would be difficult and the amount available is limited.)

The equipment also includes first-aid man-portable kits for roving first-aid men in the field.

The Federal Civil Defense has in storage in California a large amount of supplies for hospitals and back-up supplies for the various medical activities. Morphine is not being stored locally but will be made available through the Federal Bureau of Narcotics when needed in a major disaster. During the first few hours of a disaster the Civil Defense program will depend upon the normal supply of morphine available in doctors' offices, drug stores and drug supply houses.

Blood collecting bottles and donor and recipient sets have been stored throughout the state through arrangement with the local blood banks and other agencies.

Besides the supplies being stored near the assembly points for the first-aid stations, reserve supplies are being stored outside of the target areas.

INSULIN AND DIABETES

In Civil Defense planning some thought must be given to the care of diabetic persons. The committee of the American Diabetic Association, Inc., on Emergency Medical Care of Diabetics estimates that 1 per cent of the population is made up of persons known to have the disease and another 1 per cent of persons who have it but do not know it.

All persons known to have diabetes should be supplied with a diabetic identification card showing the name, address, units of insulin and the amount of carbohydrates, fats and proteins taken daily and the name of the attending physician. First-aid stations should be supplied with insulin from local sources for the emergency care of persons with diabetes. It is not the intention of the state to stock insulin. It is estimated that there is a two-year sup-

From the Medical and Health Services, California Civil Defense.

ply of insulin available in the United States stored in retail and wholesale drug warehouses, and an estimated 15- to 30-days' supply in the hands of known diabetics.

The Welfare and Evacuation Service should have trained dietitians to prepare the food for the diabetic persons being cared for in the mass care centers, and since there are not enough professional dietitians available to meet even minimum requirements, it is suggested that young women who are interested in dietetics, or who are diabetics themselves, might be trained and enrolled for this service. It would be desirable for them also to know how to examine urine and how to administer insulin.

PHYSICIANS' RESPONSIBILITY

Due to the limited time that physicians can devote to the organization and training of the medical units, an interested non-medical man or woman should be selected as executive officer. He would be responsible for organizing the unit and assisting in carrying out the training program. The physician in charge should meet with the group occasionally and become familiar with the duties of the various personnel in his unit.

RADIATION DEFENSE AND DECONTAMINATION SERVICE

Each first-aid station will train a team for the decontamination center to be established near the first-aid station. This center will be equipped to decontaminate radiation or chemical warfare casualties.

There is a definite danger of first-aid stations and hospitals becoming contaminated and possibly having to be abandoned unless proper preventive steps are taken.

It is expected that in event of a major atomic disaster all casualties would go through the first-aid stations where those exposed to radiation would be decontaminated, but it is probable that in the confusion many casualties would get to hospitals without going through the first-aid stations. Should radiation-contaminated persons be admitted without detection of the contamination, and should their clothing and other articles be kept in the hospital, the accumulated effect may be so great that the hospital might have to be abandoned and the services of some of the hospital personnel lost.

The Division of Radiological Defense will provide monitoring service for the first-aid stations but will not have sufficient radiation detection instruments for the hospitals. The Radiological Division is willing to train hospital personnel for this duty. It has been suggested that the hospital x-ray technicians would be the logical persons to receive this training. Each hospital should purchase one or two radiation detection instruments for its own use.

All professional people should be assigned to appropriate civil defense units and be familiar with the organization and operation of their units.

The following is a list of California Civil Defense manuals available at Civil Defense Headquarters, Sacramento:

1. Manual for Organization, Training and Operation of First-Aid Stations.
2. Manual for Existing, Auxiliary and Improvised Hospitals.
3. Manual for the Emergency Field Treatment of Casualties (Revised).
4. Sanitation Manual for Disaster Use.
5. State of California Department of Public Health Civil Defense and Disaster Plan.
6. Manual for California Civil Defense Blood Program.
7. Manual for Organization and Operation of Mortuary Services.

839 Phelan Building, 760 Market Street.

The Physician, the Parent and the Retarded Child

CHARLES LUDWIG, M.D., Porterville, and MARSHALL PORTER, M.D., Eldridge

• The problem of the retarded child and his parents is one confronting practicing physicians more and more frequently. Current estimates indicate that state hospital facilities for retarded persons in California are short nearly 6,000 beds. There are long waiting lists for available facilities. Many families are in desperate need of help. To advise a family to send their child to a State hospital is not a real solution nor one possible in the great majority of instances. The responsibility of the physician goes beyond this. Parents' groups have developed in the last few years and are making a real contribution to a resolution of the problem. Local community resources have increased and will further increase. A more accurate clinical understanding of the retarded child has been formed and his treatment needs more clearly defined. Physicians, parents, community and State agencies must work together to effect a coordinated program.

THE LACK of adequate treatment programs and facilities for mentally retarded persons on a private, community and state level constitutes one of California's major mental health problems. A generally accepted and probably conservative estimate is that one per cent of the general population may be considered mentally retarded, or in the United States some 1,500,000 persons.[7] Approximately 150,000 of them require the special programs of state hospitals, training schools or similar special facilities. About 90 per cent of retarded persons remain in the community with varying degrees of success.

In California nearly 12,000 state hospital beds for retarded persons are required to meet minimum needs. The normal capacity of all the hospitals available for the purpose is 5,600 beds. These hospitals have been overcrowded to provide 6,700 beds.[5, 6]

There are over 3,000 formal applications in waiting-list files of the several state hospitals concerned. There are probably at least that many more persons who need hospitalization but for whom application has not been made. For hundreds of those on the waiting list there is urgent need for admittance yet they must wait months and even years.

It is apparent, therefore, that realistic community programs are of the utmost importance. It would also seem clear that to keep most mentally retarded individuals in a state hospital for life is neither socially desirable, medically sound, nor economically possible.

Physicians whose daily work it is to treat mentally retarded persons are made aware constantly of the complex social and medical situations that are involved. Probably most of them have become convinced that if the problem were recognized objectively at the outset by the individual physician and the family of the patient, a far more satisfactory overall program could be established. A typical case history involving the parents, their retarded child, and the physician may illustrate the point. The situation, of course, is hypothetical and necessarily simplified but not at all an uncommon occurrence.

The parents, who are in their early thirties, have two normal youngsters. They rent their home, make payments on their car, and have a modest savings account. The husband works in an urban area for a salary. They are fond of their two children and are anticipating the arrival of the third. The second child was delivered by their family doctor. They know and trust him.

At the time of delivery of the third child, the physician recognizes the infant to be a "mongoloid." He feels that immediate commitment to a state hospital is the only possible solution. The physician talks to the father and tells him that the infant is a "mongolian idiot," a hopelessly mentally defective child. He recommends that the mother not see the baby, and explains that if the infant is taken home the other normal children will suffer. The mother is told that she has had an abnormal child who must be sent away.

The father makes application for emergency admittance of the baby to a state hospital, only to find that in comparison with hundreds of others his problem cannot be considered of immediate urgency. He visits the state facility and the most sympathetic and

Superintendent and Medical Director, Porterville State Hospital (Ludwig); Superintendent and Medical Director, Sonoma State Hospital, Eldridge (Porter).

objective review means little to him. All his thoughts are directed toward carrying out what seems to him to be the only possible course of action. In the meantime, the mother has returned home and the baby remains in the hospital. The other children in the home are curious and questioning. The questions are evaded, and the tensions within the family circle further increase. Days go by and the dilemma becomes more clearly defined: The child cannot be returned home; he can remain no longer at the general hospital. After considerable difficulty the father makes arrangements to place the child in a private nursery. The family funds steadily diminish and finally it becomes necessary for the baby to come home.

In these circumstances there is little doubt that the entire family will be adversely affected. From this point a variety of situations may develop. Parents very frequently have severe guilt reactions in these situations, and have a need to fix blame, on themselves and not infrequently upon the attending physician. They may be unable to accept the diagnosis, and may go from physician to physician in search of a different diagnosis or prognosis. In their search for a solution they may be exploited by charlatans who promise miraculous cures. They may be told that the child will probably not live very long—perhaps seven or eight years, and although the parent is often unable to express this, they make plans for the anticipated death of the youngster.

Although there is a serious lack of proper facility for handling the problem of mentally retarded children, much more effective use can be made of existing resources if physicians know they exist and how to use them. In the last few years much has been accomplished and there are many more resources available for parents and physicians.[8, 9, 10] Through public education and the nationwide organization of parents of mentally retarded children on national, state and community levels a greater public awareness and understanding has developed.[1, 11] Community activity has increased in scope and improved to a degree where a majority of the mildly and (to a lesser extent) moderately retarded persons are receiving better care on a local level.

Cooperative efforts by parents' groups have been responsible for some remarkably successful projects. New community programs are beginning in special education for moderately and even severely retarded persons.[2] A new service, the information center, has been established by the Department of Mental Hygiene, through its Bureau of Social Work, to help serve the needs of northern and southern California.[3, 4] The personnel of these information centers assist various agencies, medical groups and parent organizations to find ways of effecting some resolution of their problems within the community.

If the present state hospital building program is carried through, there will be over 11,000 beds available by the end of 1956.[5] The total treatment program of these hospitals has been gradually changing from one principally of custodial care to one offering more specific and active treatment. Hospital personnel are receiving intensive in-service training and have had increases in staff. It is no longer the function of a state hospital to isolate a retarded person from society indefinitely, but rather to treat him so that his return to the community can be accomplished if this is at all possible. It is only by this means that the hospital bed can be made available for new patients in more urgent need.

The parents must be helped with many of the problems that occur when the mentally retarded child enters the family, and be assisted with their future planning.

Mental retardation is only a symptom, and a symptom for which there are many causes. It is surprising how little is really known about etiology, and for this reason one basic hospital program must be research. Research programs are developing in hospitals and clinics across the country, and there is evidence of the beginnings of coordinated programs.

To illustrate what might be done with resources now available, it may be well to review in another light the hypothetical case previously outlined: The suspected diagnosis of "mongolism" is confirmed and the parents are told quite frankly that they have a mentally retarded child. It is admitted that this presents a real problem. The physician explains that mental retardation is not rare, that many parents have faced the problem before and that many are dealing with similar situations at present. He suggests that they contact the nearest parents' group. Some physicians have referral cards which are sent to the parents' group if the family is agreeable. The parents find that caring for a retarded infant at home during the first few months is not greatly different from the care of a normal infant. State hospitalization is reviewed and the parent may be advised to write the hospital for additional information or to visit the hospital preadmittance and diagnostic service. The mother and father attend a meeting of a parents' group and are reassured in such a group setting. They find parents with problems more severe than their own. From this experience the mother and father may be in a better position to acquaint the other children in their family with the nature of the problem and this can reduce the aura of mystery and tensions surrounding the home. They remain together as a family and can be unified by the experience of sharing a common problem. In finding out the facts concerning mental retardation they may be freed from many false impressions and feelings of

shame. In this fashion a family that may have isolated itself and its problems from the assistance and understanding of others find themselves working with others for common solutions. (In this regard it is noteworthy that at a recent meeting of the National Association for Retarded Children a significant theme was realistic support to research programs.)

Of course, much remains to be done. The state building program is only just started. Educational programs and community care programs for the moderately and severely handicapped youngster are only in their beginnings. There is still much false or distorted information that is still commonly accepted as fact by both lay and professional groups. Recognition of the great need for and actual carrying out of basic research projects is only in its beginnings. Hospitals remain understaffed and in some instances poorly equipped. The interrelationship between a retarded child and his family and environment offers a large area for constructive work. Mental retardation is frequently accompanied by physical handicaps and emotional disorders and there needs to be greater emphasis on total evaluation and treatment of the individual patient. These are but a few of many areas of challenge.

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***Discussion by* ARTHUR H. PARMELEE, SR., *M.D.*, Beverly Hills**

My discussion of the paper by Dr. Ludwig and Dr. Porter will be directed to the problem of mongolism as it concerns the practicing physician.

It occurs about once in every 700 births. It is recognizable at birth in at least 90 per cent of cases. Every physician with an active obstetrical or pediatric practice is bound to be faced sooner or later, and often many times over, with the serious problem of dealing with the parents of a mongoloid infant.

When should the parents be told and what should they be told? I believe both parents should be told just as soon as the diagnosis is reasonably certain, and that means within a very few days after birth in nearly every instance. If the physician suspects mongolism but does not feel reasonably sure, he should get the opinion of another experienced physician. None of us likes to tell parents that there is something seriously wrong with their newly born infant, but we are unfair to the parents and unfair to ourserves if we do not do so. Unfair to the parents because it is their right to know, and the sooner they know what their problem is the sooner will they accept the facts and, with our help, work out the solution. And unfair to ourselves because by silence we carry alone a burden that the parents should rightfully be sharing. I know of no duty harder to perform nor one that requires more wisdom and tact.

What shall we tell the parents? We should tell all we know about mongolism, of its cause, its probable course, what may be expected from a developmental standpoint, to what small extent mongoloids are likely to be able to care for themselves, and the probable necessity for custodial care. These facts must be given frankly but gently and with patience and understanding. One must be prepared to answer questions patiently, thoughtfully and truthfully, and to offer suggestions and advice.

It seems obvious to me there can be no single solution that will apply to all cases. Each set of parents has its own cultural, educational and religious background, and each will have variations in temperament and in emotional stability. These variables will make a difference in reaching a suitable solution in individual instances. In my opinion, it is quite wrong for a physician ever to insist on any particular method of handling the parents' problem, no matter how strong his convictions may be. It is, after all, their problem and they must have time to think it through and arrive at the solution which they decide is best for them. Their future happiness will depend on a conscience clear in the assurance they did what they believed to be right for themselves and their family.

The late Dr. C. A. Aldrich proposed some 15 years ago that when mongolism was diagnosed at birth, the parents should be counseled not to take the baby home from the hospital, instead to put it in a foster home until it could be placed in an institution. Many physicians followed this suggestion enthusiastically and some still do, almost fanatically. From an editorial on the subject in the *Journal of Pediatrics**

*Editorial, J. Ped., 42:396, March 1953.

it is apparent that this practice is no longer held in great favor by most experienced pediatricians. I tried it once with very unsatisfactory results. Such action is, in my opinion, morally and ethically unsound. It is tantamount to asking parents to say: "My baby is not a normal child. Therefore I shall not accept it and will take no responsibility for it."

Yannet† said: "There are two valid reasons for advocating removal of the mongoloid child from the home soon after birth. First, the possible adverse effects upon the family, especially the siblings in having the deficient child in the home. Second, the possibility that the mother or family will become so emotionally attached to the child that they will not be able to allow the child to leave the home when the proper time for custodial care is reached. Experience has shown that both are valid reasons; but I believe they apply to only a small percentage of cases. From my own experience I have no reason to believe that the emotional development of normal children is adversely affected by the presence of a custodial type of defective child in the properly oriented family." I can honestly say that I agree with these statements and my experience coincides with Yannet's.

†Yannet, H.: Round table discussion, problems of mental deficiency in children, Am. Ped., 10:223, Aug. 1952.

A mongoloid child can be given much better care in its own home than it can in any institution. Its developmental potentials can be more completely realized in its home environment. A mongoloid infant is usually happy and easily cared for. Its presence in the home can often add to the happiness of the family circle rather than detract from it. Meeting the serious problems of life *can* have an enobling influence. But, as Yannet said: "As the mongoloid child grows, and its deviation from the normal becomes increasingly evident, the possibilities for childhood companionship and play become increasingly limited in his own home. A point of diminishing returns is almost invariably reached with adverse effects on both the child and the family. This time varies. It may be as early as two years or before, or it may not be before six or eight years." When this point is reached the child and the family will definitely benefit by institutional care.

Dr. Ludwig and Dr. Porter have well illustrated the bad effects of improper handling of the problems of the parents of mongoloid infants and what I have said is a statement of convictions crystallized by experience in following the course of a very large number of mongoloids and their parents and brothers and sisters over many years. I hope my remarks will add to the value of this excellent paper.

Cancer Detection

CANCER DETECTION is a phase of health surveys for detection of disease in general. Detection of asymptomatic cancer can increase cure in women from the present level of 22 per cent to as much as 40 per cent, in men from a rate of 20 per cent to one of 40 per cent. This responsibility *is ours* —the physicians'—not a job for impersonal "detection centers" or any agency.

EVERY INTERESTED PHYSICIAN'S OFFICE
A CANCER DETECTION CENTER

CANCER COMMISSION . . . . CALIFORNIA MEDICAL ASSOCIATION

Infant Survival in Prematurity

E. W. CARTWRIGHT, M.D., Pasadena

• *Reduction of neonatal mortality and the rate of stillbirth may be expected from improved management of spontaneous labor and delivery.*

Neither roentgenographic measurement nor the inception of fetal movement or heartbeat nor any other single test is an index of fetal maturity; all must be considered together.

Prenatal care, particularly supplemented diet, will help to avoid premature delivery, or at least to prolong pregnancy; since the fetus undergoes accelerated growth during the last weeks of pregnancy, even slight extension of gestation increases the chances for survival.

Analgesia in the first stage of premature labor is contraindicated. Only low spinal anesthesia and other types of conduction anesthesia should be employed for later stages.

The fetal membranes should be preserved as long as possible, but premature rupture does not call for immediate termination of pregnancy. Deep episiotomy and prophylactic outlet forceps are routinely employed to hasten the second stage of premature delivery and to protect the immature fetus. Breech presentation is managed by unassisted expulsion or by forceps extraction of the head.

The umbilical cord is not immediately severed on delivery; administration of oxytocic drugs after the second stage of labor, combined with gentle stripping of the cord, results in rapid transfer of increased amount of placental blood. The airways of the infant should be immediately cleared. Artificial respiration may be necessary and it must be gentle.

All premature infants should receive supplementary oxygen to render breathing regular and more efficient. They should be insulated immediately in controlled temperature and humidity, and they should be handled little.

PREMATURITY IS ASCRIBED as the chief cause of death of 41,000 children yearly in the United States, and this figure is probably far below the true incidence. This prematurity is eighth among all causes of death of persons of all ages. It is apparent that the rates of stillbirth and neonatal death are hardly affected by the new obstetric techniques which have greatly lowered maternal mortality. At Huntington Memorial Hospital, for example, maternal mortality declined in about 20 years to one-sixth the original figure, yet the neonatal death rate continued unchanged. Although in normal conditions the fetus benefits to some extent from improvements in obstetric technique designed primarily to help the mother, special measures are needed in event of complications of pregnancy and delivery that threaten the fetus. Among the complicating factors, prematurity is of greatest importance, although strides have been made in recent years in prevention of premature labor and in the management of it when it does occur.

DIAGNOSIS OF PREMATURITY

The definition of prematurity is most frequently based on birth weight alone, all infants that weigh less than 5 pounds 8 ounces, or 2,500 gm. being classified as premature. Like any other rigid rule, however, this standard proves at time erroneous. Although gestational age is an equally imperfect yardstick, the Bureau of the Census defines premature birth as termination of pregnancy in the period from the beginning of the 28th to the end of the 37th week of gestation. The question of whether weight or gestational age is a better indication of the maturity of the fetus is of considerable practical importance in the management of premature labor. Obviously it would be of great advantage to the obstetrician in deciding on the management most beneficial to both mother and infant if he could establish with any degree of accuracy the level of maturity reached by the fetus. To this end, several methods have been proposed. One method is based on measuring the occipitofrontal diameter of the head of the fetus by a special roentgenometric technique.[11] Time of first fetal movements and onset of fetal heart beats are an unreliable basis for an estimate of the degree of maturity.[24] It may be concluded that maturity cannot be determined on the basis of any single factor. Prematurity is comparatively more frequent in primaparae in mothers below 20 years of age.[36] Some women always have premature delivery.[1]

In the following discussion, prematurity owing to

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such maternal complications as placenta previa, premature separation of the placenta and uncontrollable toxemia are not further taken into consideration. In all those conditions the primary concern of the obstetrician is safeguarding the life of the mother. The entire course of procedure, therefore, differs from the management of spontaneous premature delivery.

PRENATAL CARE

When there is any indication that premature termination of pregnancy may occur, the first concern of the obstetrician is to improve the health of the mother and thus to prolong gestation, to full term if possible, thereby increasing the weight and maturity of the infant. In a recent survey it was established that about 25 per cent of all patients with poor prenatal care had premature babies, in contrast to only 7 per cent of those who had received adequate care.[15]

The most important single factor influencing premature delivery is the diet during gestation. Tompkins[39] corrected nutritional deficiencies in 750 women, two-thirds of whom were ward patients, and none of them had premature delivery. Infant mortality in the series was 0.28 per cent, corrected. It is of special interest that with improved diet such signs and symptoms as fatigue, muscular weakness, dyspnea, anorexia, insomnia, headache, depression, nervousness and constipation—long considered attributable to normal pregnancy—disappeared. There were no cases of preeclampsia or eclampsia, and mild toxemia appeared in only 4 per cent of patients.

A slight increase in the intake of protein, calcium and phosphorus resulted even under adverse wartime conditions in Britain in a sizable reduction of the incidence of premature births.[8, 16] When the maternal diet was properly supplemented in a group of patients in the lowest income brackets, the incidence of premature births dropped to 2.2 per cent, while it amounted to 8.0 per cent in a similar group with poor diet not supplemented. Content of hemoglobin and especially of ascorbic acid at term was considerably higher in the group with supplemented diet than in the control group.

Stress and strain in the home situation are major factors in the incidence of premature births.[21] Women who do not receive sufficient rest during pregnancy, and whose duties are out of proportion to their capabilities, are more likely to bear underweight infants.[1] Sufficient sleep at night and a nap in the middle of the day are most important for women who seem predisposed to premature labor,[5] although limited activity is beneficial. Almost complete bed rest is indicated, however, in any case in which there is evidence of effacement of the cervix at 28 to 34 weeks.[12] Hygienic measures are of special importance to women in whom premature labor is likely. Overindulgence in sexual intercourse late in pregnancy may precipitate premature birth,[23] and as a general rule sexual relations are contraindicated after the seventh month of pregnancy.[14]

Premature rupture of the fetal membranes, formerly considered a grave hazard, now is looked upon as a not serious complication and is treated expectantly.[29] According to recent investigations, premature rupture does not seem to be a cause of the development of pneumonia in the fetus while still in the uterus, but the danger of infection can never be entirely excluded, and coitus is strictly to be avoided after rupture.[3, 15] Immediate hospitalization is desirable, but labor should never be induced without good reason, and the patient can usually be sent home after a few days. By careful management, gestation often can be extended for weeks after premature rupture.[24]

So great are the advantages of intrauterine development that every attempt should be made to extend gestation if only for a few days, since fetal growth and weight increase are accelerated in the last weeks of pregnancy. During the seventh lunar month the weekly gain in weight is about 4 ounces. The gain increases to 6 ounces a week during the eighth month, and to 8 ounces weekly during the ninth month.[11] At the same time qualitative changes take place. Besides minerals and vitamins, immune substances and various hormones are transferred to the fetus during that period. The sweat glands develop only during the last weeks of intrauterine life, and an insulating layer of subcutaneous fat is laid down.[14] Both these factors are of greatest importance for acclimatization to the extrauterine environment.

The wholehearted cooperation of the mother is needed for good prenatal care, but it is precisely in population groups least able and least willing to follow medical advice that the highest rate of premature births and infant mortality is encountered. It is in such circumstances that a comprehensive Premature Infant Program such as has been introduced in Colorado,[18] has its most successful application. This splendid experiment in which the practicing obstetrician joins forces with a medical research center and with public health units made up of nutritionists, social workers and visiting nurses, has immediately resulted in a lowering of the incidence of premature labor and neonatal death. Such a plan, far from being a step toward socialized medicine, is in fact one of the most effective means of preventing such a development.

ANALGESIA AND ANESTHESIA

In spontaneous premature delivery by the vaginal route the chances for survival of the fetus depend to a large degree on the choice of analgesia and anes-

thesia.[40] The use of opiates and barbiturates is strongly contraindicated. These drugs have a depressing effect on the respiratory center of the underdeveloped fetus, and respiration will be greatly retarded if the drug is administered within four hours of labor.[33] Heavy sedation, in an attempt to stop labor is especially dangerous, as the patient might go on to delivery anyway. In premature delivery it should be possible to dispense with sedative drugs in the early stages and to rely exclusively on "vocal analgesia" in that period. Reassurance and encouragement are almost always effective once a woman understands that it is best for her child that she bear the pains of early labor, and that anesthesia will be administered toward the end of the first stage.[25, 35]

On the other hand, a high rate of stillbirths and infant mortality is associated with premature delivery entirely without analgesia or anesthesia. Uncontrolled, precipitate labor leads to reflex bearing-down of the powerful abdominal muscles, and the pressure of rigid tissues is likely to injure the soft structures of the incompletely developed fetus, especially the skull.[19, 26]

The choice of anesthesia for premature delivery by the vaginal route is essentially similar to that in vaginal delivery at term.[9] The excellent results obtained with block anesthesia in vaginal delivery at term are mainly due to the fact that when this method is used initial respiration usually occurs promptly; resuscitation is required only in exceptional cases. These advantages are of still greater importance in cases of premature birth. While essentially the same technique is followed, anesthesia is started earlier in premature delivery, especially with multiparae. For a multiparous woman it is initiated well before the end of the first stage to prevent heavy bearing down and protect the malleable skull of the infant. Relief from the pains of labor is almost immediately obtained in block anesthesia; the muscles relax, and contractions become regular and less violent.

In a series in which various types of conduction anesthesia were applied, the infant mortality was decidedly lower in premature babies of all weight groups than it was in a control series in which delivery was done under non-conduction anesthesia.[26] In a series in which caudal anesthesia was used the neonatal mortality amounted to 1.32 per cent of premature infants that were alive at birth, while in a control group in which nitrous oxide, ether, nitrous oxide and ether, or other anesthetics were used, the rate was 2.27 per cent.[19, 24]

TECHNIQUE OF DELIVERY

In delivery at full term the lower uterine segment is normally thinned out by a slow, painless process extending over the last weeks before the onset of labor. In premature labor, on the other hand, dilatation of the thick lower segment must be brought about by painful contractions which entail great hazard to the immature fetus.[30] It is during this later part of the first stage of labor that muscular relaxation brought about by conduction anesthesia is of greatest benefit.[25] To protect the malleable head of the infant the fetal membranes should be kept intact as long as possible,[13] for the unruptured membranes cushion the head from the impact of the pelvic muscles.[25]

In cephalic presentation deep episiotomy is routinely performed as soon as the head emerges at the perineum, in order to hasten the second stage of labor.[37] Episiotomy protects the baby's head from the obstructing perineal body, which especially in nulliparous women is tight and unyielding.

Prophylactic outlet forceps should be used if delivery can be hastened thereby, but care must be taken to do no more than control the rate at which the head is expelled and not to exert compressive force.[31] Rarely should forceps be applied to the premature head at a higher level than the outlet,[37] and only gentle traction should be employed. Also to be borne in mind is that sudden release of pressure on the yielding head of the premature infant may result in cerebral edema, tentorial tears or hemorrhage.[26] It is best to guide the head gently over the relaxed perineal floor, thus reducing pressure to a minimum while permitting time for adjustment of the cranium. With these precautions strictly observed, the use of forceps is entirely safe.[7]

Breech presentation, four times as frequent in premature delivery as in labor at term,[31] is a decided complication. A choice has to be made between unassisted expulsion and application of forceps to the fetal head.[24] The difficulties of forceps extraction stem from the fact that the head of the fetus is relatively large, its diameter exceeding that of the shoulders. The procedure requires greatest care and should never be attempted before the cervix is adequately dilated.[31] If cervical dystocia develops, it may be necessary to use Duhrssen's incisions in order to safeguard the after-coming fetal head against injury from the incompletely dilated cervix.[38] Rarely and only with great care should suprapubic pressure be applied to the head.

The question as to the appropriate time for severing the umbilical cord and the concomitant problem of autotransfusion have been widely discussed. Premature infants are always in danger of microcytic hypochromic anemia due to low storage of iron and to a less than normal ability to metabolize iron.[13] By delaying ligation of the cord an additional amount of blood is transferred to the infant and helps to maintain adequate blood pressure.[5] After the second stage of labor, pulsations of the umbilical

cord play only a minor role, and transfer of blood to the baby is mainly due to contractions of the uterus upon the blood-filled placenta.[27] The infant has received all available blood only when the umbilical vein is no longer distended. Best results may be expected from administering an oxytocic drug as soon as the anterior shoulder emerges and then waiting for one minute before delivering the rest of the body. In the minute of waiting mucus should be removed from the airways of the dependent head, with special attention to clearing the glottis before any mucus can enter the trachea, for most babies cry before the rest of the body is born. The corpus contracts vigorously, separating the placenta. All the blood required can be transferred by gently striping the cord.

RESPIRATION

Establishment of breathing is one of the cardinal points in the management of premature delivery. Resuscitation may be necessary, but not often if the best technique is followed in conducting the vaginal delivery, especially with regard to the choice of anesthesia. However, even though the infant is breathing when delivered, it may later have difficulties stemming from asphyxial conditions *in utero*.[28]

The first step in instituting respiration is clearing of the airways. The technique for cases of cephalic presentation has been described. In breech presentation, while waiting for the oxytocic drug to take effect, the baby is placed on the mother's abdomen and the head turned sideways so that the mucus can be cleared more easily. Mucus in the upper pharynx is drawn out with a soft rubber suction bulb or by mouth suction. The glottis and trachea are cleared under direct vision, if necessary with the aid of a laryngoscope.[32]

If clearing of the airways does not induce inspiration, mechanical resuscitation is required. The use of chemical respiratory stimulants may do more harm than good, but in an emergency mouth-to-mouth breathing may supply the necessary pressure to initiate inspiration. The danger of infection is negligible and certainly much less to be feared than exaggerated pressure applied by an over-eager person.[10]

In experienced hands, endotracheal intubation is effective. The procedure is simple for anyone who has learned to manipulate a laryngoscope.[32] With the tube in place, oxygen is insufflated under gentle intermittent positive pressure. Usually the infant will respond in a few seconds; if breathing does not start within five minutes, the chances of survival are slight.

Mechanical resuscitation requires a device especially designed for the purpose. Recently a positive pressure oxygen-air lock has been described[6] which provides the infant with heat and humidity while exposing it to controlled pressure of air containing adequate amounts of oxygen and carbon dioxide. The first positive pressure causes an outpouring of fluid and secretions from mouth and nostrils and at the same time promotes bronchial drainage and alveolar aeration. Later on, transition to a standard incubator must be handled with great care. Certain objections have been raised against the use of any positive-pressure resuscitators.[14] The limits of safe intrapulmonary pressure have not yet been determined and excessive pressure may rupture the fragile alveoli and cause pneumothorax. If the glottis is closed, air may enter through the esophagus and interfere with excursions of the diaphragm. Sometimes the tongue may completely block the airway.[10]

It is advisable to place every premature infant, even if there are no signs of cyanosis, in an incubator containing a 40 to 50 per cent oxygen concentration, for at least the first 24 hours.[34] Cyanosis may occur in apparently healthy premature children from causes which would not bring about such a condition in infants born at term.[22] Any infection or minor obstruction of the respiratory tract may prove fatal, and the tissues become edematous if under-oxygenation is permitted to persist for any length of time.[2] The oxygen concentration must be increased for premature infants with any indication of asphyxia. The lungs of asphyxiated infants, being atelectatic, congested and edematous, are particularly susceptible to infection. Bronchopneumonia should be suspected in any newborn premature infant with signs of asphyxia.[3] It is now conceded that many lesions formerly ascribed to trauma of delivery are in reality owing to asphyxiation.[28] Almost as important as resuscitation is immediate insulation of the infant in order to conserve temperature and prevent unnecessary loss of energy. High relative humidity, at least 65 per cent, should be maintained.

PEDIATRIC CARE

Newborn infants should be handled as little as possible; weighing and bathing can be deferred indefinitely. Further protective measures may become necessary, but such specialized management ought to be entrusted to a pediatrician, who should even decide when it is safe to remove the child from the delivery room. It is advisable to call in a pediatrician for all deliveries occurring before the 37th week of gestation, and even for those more closely approaching term if any complication of pregnancy is present.

Although many problems remain, constant progress is being made in prevention and management of spontaneous premature labor. As a result of better

obstetric technique, many more premature babies leave the delivery room in reasonably good condition; but by the same token many infants that would formerly have died are salvaged and are turned over to a pediatrician in a rather precarious state.[20] Thus it could well be that further improvement of obstetrical methods will be expressed not so much in lowered neonatal mortality as in a decrease of the rate of stillbirths.

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CASE REPORTS

- **Acute Diverticulitis of the Jejunum**
- **Diaphragmatic Hernia Simulating Hydropneumothorax**
- **Benign Diaphragmatic Tumor**
- **Infectious Mononucleosis**
- **Renal Ectopia Associated with Pregnancy**

Acute Diverticulitis of the Jejunum

Report of Two Cases

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DIVERTICULITIS most often occurs in the colon, for not only is the colon the site of greatest incidence of diverticulosis, but the factors predisposing to inflammation exist there to a greater extent than in any other portion of the gastrointestinal tract. In decreasing order of frequency, diverticula are found in the colon, ileum, duodenum, pharynx and esophagus, stomach and jejunum. In the jejunum, acute diverticulitis is an extreme rarity.

Diverticulosis of the jejunum occurs in both sexes equally. While it has been stated that the incidence is predominantly in the older age groups, several recent reports have included cases in persons in the second and third decades of life. In one of the two cases herein reported, in both of which diverticulitis developed in a solitary diverticulum of the jejunum, the patient was 23 years of age and in the other 38.

Most jejunal diverticula are multiple and most are situated in the proximal quarter of the jejunum. In contrast to the true or congenital Meckel's diverticulum, jejunal diverticula are usually acquired. In the opinion of most investigators the primary cause is weakness of the wall of the bowel at the point of penetration of the mesenteric vessels, permitting outpouching to either side of the mesenteric attachment at or near the point of penetration of the mesenteric vessels, presumably as the result of pulsive forces. As it enlarges, the diverticulum thus begun may insinuate itself within the leaves of the mesentery or enlarge tangentially to the mesentery. In contrast to Meckel's diverticulum, which theoretically may arise in the jejunum, these diverticula do not have their own mesentery, regardless of the size they attain. As the jejunum is mobile and the contents fluid, jejunal diverticula empty readily. Also, in most cases the stoma is of sufficient diameter that stasis does not occur. For these reasons, acute inflammation is a rare complication of diverticula in this location. However, if the diverticulum is narrow-mouthed it is conceivable that obstruction at the mouth by static, inspissated intestinal contents may initiate the sequence of obstruction, inflammation and finally perforation.

The signs and symptoms related to uncomplicated jejunal diverticulosis are usually vague in character, if present at all. Abdominal cramps, nausea, excessive borborygmi, flatulence and diarrhea have been reported, and are usually related to ingestion of food. Obstruction has been reported due to enteroliths and adhesions, and in such case the symptoms characteristic of high obstruction supervene.[6, 15] Occasionally serious bleeding occurs at diverticula in this location.[1, 9] In the cases reported herein, acute inflammation caused pronounced tenderness to pressure, rebound tenderness and rigidity. Both patients had nausea, vomiting and crampy abdominal pains. In both cases the tenderness was confined to the lower quadrants of the abdomen and was greatest on the left.

Laboratory and x-ray studies do not aid materially in the diagnosis. X-ray evidence of small intestinal diverticula, particularly solitary obstructed lesions, is notoriously difficult to demonstrate. Leukocytosis of moderate degree, with predominance of neutrophils, occurred in both the cases here reported, in keeping with the pronounced inflammatory process present in both.

Considering the paucity of specific symptoms, it is not surprising that correct preoperative diagnosis is rare.

The treatment of acute jejunal diverticulitis is dependent upon the position of the diverticulum and the presence or absence of associated diverticula. For a freely mobile solitary diverticulum, simple resection with repair of the wall of the bowel is the treatment of choice. If the diverticulum is intramesenteric and of considerable size, resection might compromise the blood supply of the involved segment of bowel, and for this reason it is wiser to resect the segment of bowel bearing the diverticulum and to perform end-to-end anastomosis. Multiple diverticulosis, when confined to the jejunal segment, calls for wider resection, the patient's condition permitting. Operation in stages, first a divert-

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ing enteroenterostomy, and later resection of the involved segment, has been advocated by some surgeons.

REPORTS OF TWO CASES

CASE 1: A 38-year-old white woman was admitted to the hospital with chief complaint of abdominal pain. Epigastric pain and nausea and vomiting had begun suddenly 48 hours previously. The pain, which became severe aching, later localized in the suprapubic area. There was no history of previous symptoms referable to the gastrointestinal tract or of menstrual abnormality.

There was rather pronounced muscle spasm over the suprapubic area, the rigidity decreasing laterally. Tenderness was present in the same region but seemed a little greater to the left of the midline. Rebound tenderness was present over the entire lower half of the abdomen. Bowel sounds were hypoactive.

The temperature was 102.4°F., the pulse 104 and the blood pressure 110/64 mm. of mercury.

Leukocytes numbered 22,000 per cu. mm. of blood, with 92 per cent neutrophils. Results of urinalysis were within normal limits.

The diagnosis was acute appendicitis, probably ruptured.

A right lower paramedian incision was made and when the peritoneal cavity was opened a moderate amount of turbid yellowish fluid was noted. An inflammatory mass was observed contiguous with the jejunum about 30 cm. from the ligament of Treitz. Lysis of fresh inflammatory omental adhesions in this region exposed a globular diverticulum, approximately 7x5x3 cm., arising from the mesenteric border of the jejunum and extending between the two leaves of the mesojejunum. The neck of the diverticulum was approximately 1.0 cm. in diameter. Patches of fibrinopurulent exudate were present over the diverticulum and the adjacent mesentery, which appeared edematous and indurated. A 12.0 cm. segment of jejunum, the mesenteric wedge containing the diverticulum and the contiguous indurated mesentery, was resected and end-to-end anastamosis was performed. Several flakes of inspissated fecal material impacted in the mouth of the diverticulum were noted on a section of the specimen. The pathological report was "Acute suppurative inflammation of jejunal diverticulum." No organisms grew on a culture of the peritoneal fluid.

Postoperatively, nasogastric suction was continued for 48 hours, and antibiotics were given for 6 days. Discharged from the hospital on the eighth postoperative day, the patient remained well thereafter. Barium x-ray studies showed no other small intestinal diverticula.

CASE 2: A 23-year-old white man was admitted to the hospital with chief complaint of crampy lower abdominal pains of 13 hours' duration. There was no nausea or vomiting but the patient was anorexic. On the evening of admission he had had chills and felt "feverish." He had had a normal bowel movement on the day of admission.

The patient had had appendectomy several years before.

The temperature was 100.8°F. and the pulse rate 100.

Voluntary rigidity was present in both lower quadrants of the abdomen and rebound tenderness was noted. Tenderness seemed to be consistently more pronounced on the left side. No abnormality was noted in a rectal examination.

Leukocytes numbered 17,850 per cu. mm. of blood, 82 per cent neutrophils. Results of urinalysis were normal. No abnormality was noted in a plain film of the abdomen.

The provisional diagnoses were (1) Meckel's diverticulitis, and (2) incomplete small intestinal obstruction due to postoperative adhesions. The abdominal signs became more pronounced and the patient was prepared for laparotomy 11 hours after admission.

The abdomen was opened through an upper right rectus muscle-splitting incision. A solitary diverticulum of the jejunum, measuring 3x1x1 cm., arose from the mesenteric border, 10 cm. from the ligament of Treitz. The serosal surface of the diverticulum as well as the adjacent mesentery were reddened and on them were patches of fibrinopurulent exudate. The diverticulum was dissected bluntly from the adjacent mesentery, exposing a narrow neck measuring about 1.0 cm. in diameter. The diverticulum was transected at its neck and the resultant jejunal defect was closed with a purse-string suture. The postoperative course was uneventful and the patient was discharged on the tenth hospital day. No follow-up gastrointestinal series could be obtained.

The pathological report was "Acute suppurative inflammation of a jejunal diverticulum."

SUMMARY

Two cases of acute suppurative inflammation of solitary diverticula of the jejunum, occurring in relatively young persons, are presented. Because of the infrequency of this condition, it is doubtful that a correct preoperative diagnosis can be made in the absence of previous studies revealing diverticula. However, the condition should be considered in the differential diagnosis of acute abdominal conditions.

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Diaphragmatic Hernia Simulating Hydropneumothorax

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ALTHOUGH protrusion of the stomach and colon into the thoracic cavity, closely simulating hydropneumothorax in roentgenographic appearance, is quite unusual, the medical literature is replete with descriptions of the diagnostic and therapeutic aspects of herniations of portions of the gastrointestinal tract into the thorax. Certainly little can be added to the roentgenological knowledge of this abnormality, except to better delineate the various types of hernias preoperatively. In that regard the case here reported presents some unusual aspects which warrant recording. The roentgenographic appearance of the chest was so typical of hydropneumothorax that thoracentesis was done, in an effort to relieve the symptoms, before the correct diagnosis was established.

CLINICAL HISTORY

A white woman 45 years of age was admitted to the Palo Alto Hospital with severe respiratory distress, marked by cyanosis, dyspnea and pain in the left side of the chest. The patient was nauseated and had vomited repeatedly during the several hours preceding admittance. The symptoms had begun about 36 hours previously and had gradually increased in severity. The patient was admitted directly to the x-ray department of the hospital with a request for roentgen examination of the chest and abdomen. The referring physician was aware that a diaphragmatic hernia had been demonstrated several years previously, but this information was not immediately available to the roentgenologist. Films of the chest (Figure 1) were made. It was the opinion of the roentgenologist that there was extensive hydropneumothorax on the left. As the patient was in severe distress, paracentesis was carried out, but aspiration was immediately discontinued when it was noted that the fluid withdrawn bore strong resemblance to gastric contents. An x-ray film of the abdomen with the patient supine was made (Figure 2, A). There appeared to be very little gas in the intestines, and an area of increased density in the left side of the abdomen extended into the left side of the chest. The left hemidiaphragm could not be delineated. It was presumed that the stomach, grossly dilated and containing a large amount of fluid, was in the chest. The stomach was intubated, a few liters of gastric contents withdrawn, opaque material introduced. X-ray films then showed the stomach in the thoracic cavity (Figure 2, B and C). Subsequent studies showed portions of the transverse and descending colon in the chest also, with the splenic flexure at the level of the left first interspace (Figure 3).

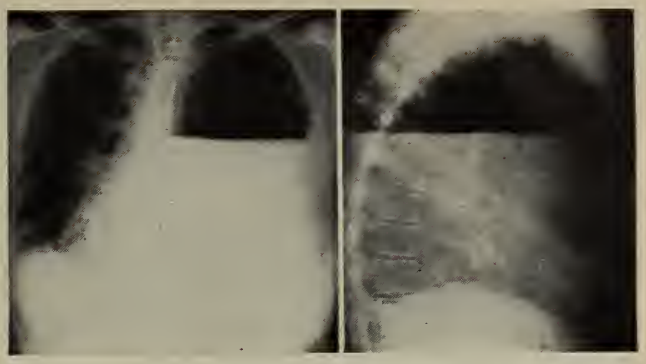
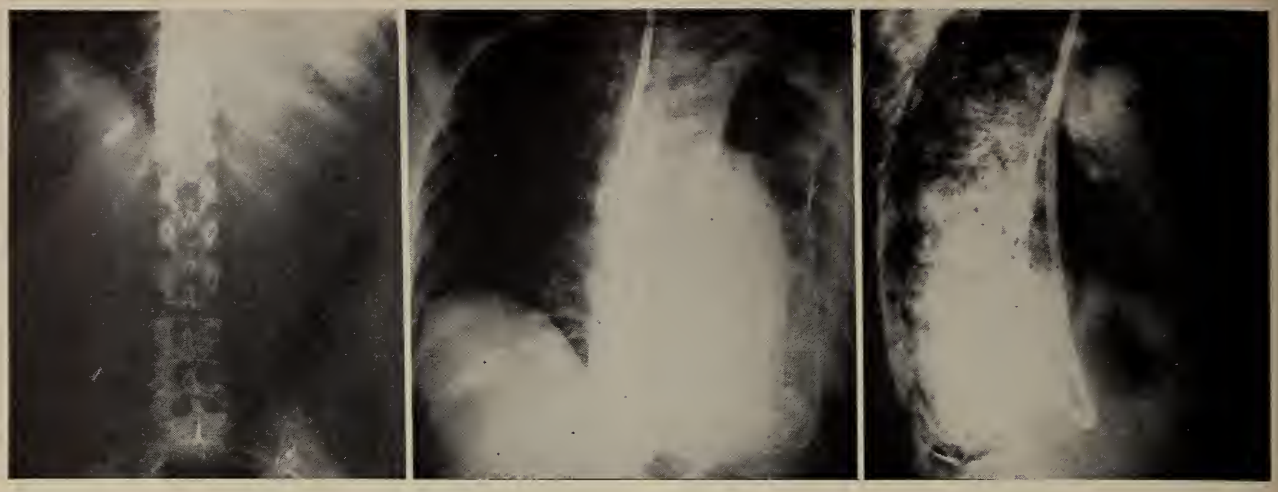


Figure 1.—Chest films before intubation, showing gas and fluid-filled stomach filling left side of chest.

At operation it was noted that the entire stomach and about four inches of duodenum were in the left side of the chest. A loop of colon lay anterior to the stomach, extending to the apex of the thoracic cavity. The lower lobe of the lung was entirely collapsed and there was only a small amount of air in the upper lobe. There were extensive defects at the mid-line of the diaphragm, one of them anterior to a normal esophageal hiatus, through which the colon passed, and another posterior through which the stomach and duodenum passed. There was no sac over the stomach or colon. The appearance suggested that injury had caused the displacement, but no history of significant trauma could be obtained. The stomach and colon were returned to the abdominal cavity and the defects in the diaphragm repaired. Both lobes of the lung reexpanded. The patient recovered without complications.

In subsequent roentgen studies of the gastrointestinal tract, the organs were in normal position, and no abnormality was evident, except that even one year later the stomach still emptied quite slowly.



A B C

Figure 2.—*Left,* abdomen, showing left-sided density and nondelineation of left hemidiaphragm. *Center,* opaque material in partially deflated stomach. *Right,* opaque material in stomach, lateral projection.

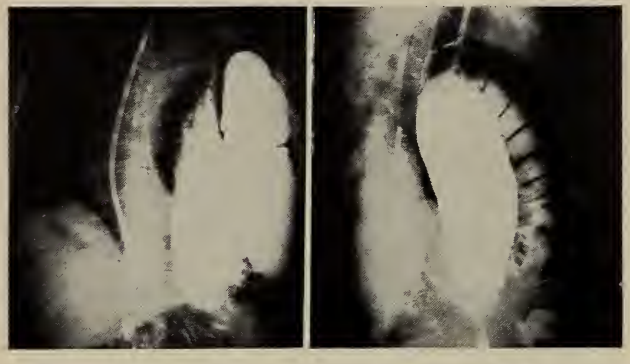


Figure 3.—Opaque material in colon, showing splenic flexure near apex of the thoracic cavity. Lateral view shows colon anterior. Tube and some barium remain in stomach posteriorly.

DISCUSSION

Recent excellent articles describe the roentgenological aspects of diaphragmatic hernia.[1, 2] So far as is known, however, the confusion between hernia and hydropneumothorax that was a factor in the case here reported has not previously been described. Yet, when the entire stomach is in the chest, this appearance is an ever-present possibility. In the present case, had a film of the abdomen been studied with the chest films, the possibility of herniation would certainly have been considered. Fortunately, no ill effects followed thoracentesis.

CONCLUSION

A case of herniation of stomach and colon into the chest, simulating hydropneumothorax, is reported. In this case, the erroneous interpretation could have been obviated by further investigation of the previous clinical history and by x-ray study of the abdomen at the time the films of the chest were studied.

3004 Broadway.

ACKNOWLEDGEMENT

The author is indebted to Dr. Blake C. Wilbur, Palo Alto, California, and Dr. Herbert A. Clattenburg, Redwood City, California, for the clinical information in this case.

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Benign Diaphragmatic Tumor

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J. R. JOHNSON, *M.D.*, Los Angeles;
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FEW REPORTS OF TUMORS of the diaphragm have been made. Scott and Morton[8] in 1946 and Clagett and Johnson[2] in 1949 reviewed the literature and reported additional cases. The latter found reports of only 30 apparently authentic cases of primary tumor of the diaphragm, and they reported four additional cases. In 18 of the 34 cases the tumor was malignant and in 16 benign. In only seven of the cases in which the tumor was benign was it removed surgically; in the remainder it was noted at autopsy. Since the report by Clagett and Johnson, two cases of benign tumor and three of malignant tumor of the diaphragm have been reported.

The one herein reported is the nineteenth reported case of benign diaphragmatic tumor and the tenth in which the growth was surgically removed.

Diaphragmatic tumors may be asymptomatic and when symptoms do occur they are not pathognomonic. Pain in the chest is the most common symptom. The pain may be aggravated by deep breathing, and pain in the shoulder may occur. The pain may in part

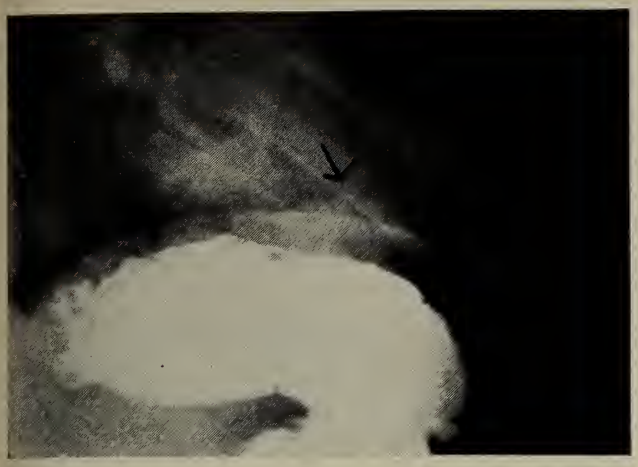

Figure 1.—Deformity of diaphragm noted incidentally in gastrointestinal study.

be referred to the upper abdomen. Pain is usually present for a considerable time before a diagnosis is made, and the patient may have consulted several physicians and be considered psychoneurotic.

An abnormality in the diaphragm may be seen in an x-ray film of the chest, but roentgen studies with pneumoperitoneum or pneumothorax usually are necessary for clear visualization of the lesion.

The treatment is thoracotomy for removal of the tumor and repair of the diaphgram.

REPORT OF A CASE

A moderately obese white man 36 years of age, first examined March 24, 1953, said that for five years he had had pain of increasing severity in the left upper quadrant of the abdomen, in the lower part of the chest on the left side, in the left scapula and shoulder, and at times extending down the left arm to the wrist. The pain was made worse when he lay down and was worse at night, frequently awakening him. The patient had consulted several physicians but nothing could be found to account for the pain.

On physical examination it was noted that deep pressure in the left upper quadrant of the abdomen, as well as deep inspiration, caused pain in the left shoulder. There was tenderness in the epigastrium.

He was admitted to hospital and in x-ray films taken for study of the gastrointestinal tract a deformity in the left diaphragm was noted (Figure 1). The deformity moved with the diaphragm during respiration and the possibility of a mass involving the diaphragm was suspected.

Deformity in the outline of the left diaphragm was seen in a film of the chest also, but it was not pronounced and whether it was due to intrinsic disease in the diaphragm, a congenital defect in the musculature or a mass under the diaphgram could not be determined. In x-ray films taken after the injection of 500 cc. of air through the left abdominal wall at the level of the umbilicus, a 3 x 4 cm. ovoid, smooth-bordered shadow of increased density was

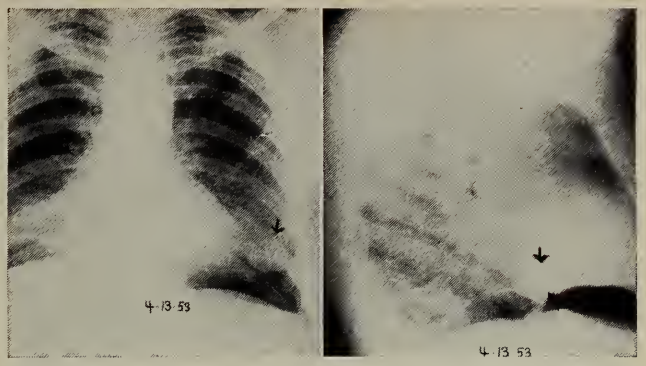

Figure 2.—Tumor of diaphragm definitively visualized after injections of air into peritoneum.

Figure 3.—Tumor viewed after incision at top of diaphragm.

noted in the left diaphragm (Figure 2). It was thought to be a benign tumor of the diaphragm.

Upon thoracotomy a 4 cm. encapsulated tumor was observed just to the right of the central tendon in the muscle of the left diaphragm (Figure 3). It was covered by diaphragmatic pleura. The diaphragm was incised directly over the tumor and after the tumor was shelled out the diaphragm was closed in two layers with interrupted mattress sutures of No. 0 black silk. The chest was closed in layers and a Foley catheter was placed for drainage for two days.

Pathologist's Report

The specimen, an oval mass weighing 17.6 gm. and measuring 3.8 x 3.2 by 2.0 cm., was covered by an intact capsule to which strands of striated muscle were adherent on one side. The cut surface was grayish white, resilient but firm and showed small embossed lobules. After examination of frozen sections the diagnosis "benign mesodermal tumor possibly of smooth muscle origin" was made.

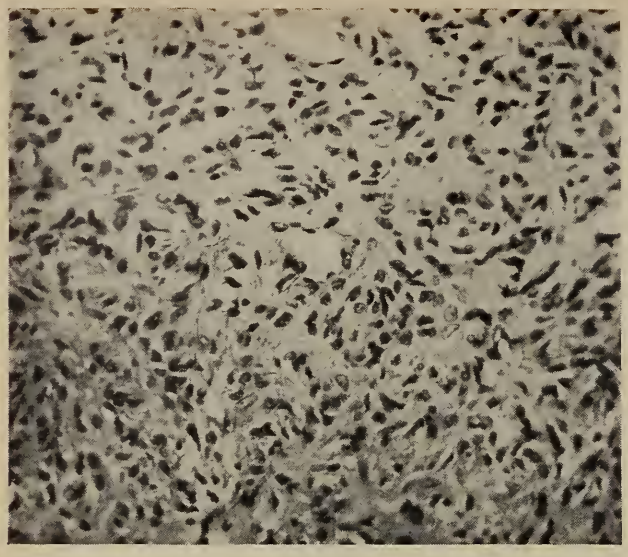

Figure 4.—Section of tumor stained with hematoxylin and eosin (× 360).

Histologic preparations (Figure 4) showed poorly defined globular areas of deeply eosinophilic hyaline material imbedded in fibroblastic tissue. Within the hyaline there were scattered vesicular and pyknotic nuclei, often lying in apparently artifactitial lacunae. At the periphery of these areas there was a more cellular tissue composed of fibroblasts arranged in small whorls surrounding capillary vessels. There were also frequent dilated and tortuous capillaries nearby. Those cells bordering on the hyaline tended to have a radial arrangement. The globular complexes described were separated by a less cellular fasciculated fibroblastic tissue still rich in capillaries. Striated muscle outside the capsule showed perivascular lymphocytic infiltration, but was otherwise within normal limits.

Studies of specially stained specimens indicated that the hyaline originated from collagen. There was no evidence of fat in frozen sections stained with Scarlet R.

The diagnosis was "angiofibroma, benign," with the comment that the tumor could have originated from submesothelial elements of the pleura.

The patient left the hospital on the fourteenth postoperative day, returned to work as a department store floor manager in two months and remained in excellent health except for a brief episode of herpes zoster just below the operative scar three months after operation.

SUMMARY

In a patient who had had localized pain high in the abdomen for five years a tumor of the diaphragm was visualized, indecisively at first, in x-ray films of the chest and then definitively after injection of air into the peritoneum.

The mass was removed and was diagnosed as benign. The patient recovered.

3741 Stocker Street (Harvey).

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Infectious Mononucleosis

Treatment with Corticotropin

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CHARLES F. NAEGELE, M.D., San Francisco

ALTHOUGH in most cases of infectious mononucleosis the manifestations and the course of the disease are fairly well standardized, the symptoms may be protean. In the past decade in particular increasing attention has been paid to the occasional atypical case. Complications such as pneumonitis,[3, 9, 15] hepatitis,[7] thrombocytopenic purpura,[1] hemolytic anemia,[10] myocarditis,[5, 15] and spontaneous rupture of the spleen[11] have been described. Involvement of the nervous system[2] has been demonstrated in reports of infectious mononucleosis associated with meningitis, encephalitis, neuronitis, optic neuritis and peripheral neuropathy. While the disease is usually benign and self-limited, seldom producing symptoms other than asthenia for more than three to six weeks and subsiding without sequelae, in a small number of cases it causes severe and prolonged illness[6] and sometimes death.[3, 12]

Since the evidence at present does not justify more than hypothetical designation of the causative agent, treatment is essentially supportive. Careful studies have shown that the course and duration of the disease are not changed by the use of penicillin,[9] aureomycin[9, 14] or chloramphenicol.[14] In the case herein reported a patient severely ill with the complications of infectious mononucleosis was treated with corticotropin (ACTH) and prompt recovery from critical illness ensued.

From the Department of Medicine, United States Public Health Service Hospital, San Francisco.

CASE REPORT

A 21-year-old white Coast Guardsman was admitted to the U. S. Public Health Service Hospital, San Francisco, October 16, 1952, with complaint of soreness in the neck. Four days previously he noted the gradual onset of dull aching in the back of the neck, extending out to the shoulders. This did not respond to local treatment with a heat lamp but became associated with generalized aching, particularly in the low back and the joints of the extremi-

TABLE 1.—*Laboratory data*

Date	Hospital Day	Leukocytes: Total per cu. mm.	Leukocytes: Neutrophils Per Cent	Leukocytes: Monocytes Per Cent	Leukocytes: Lymphocytes Per Cent	Leukocytes: Abnormal Lymphocytes Per Cent	Sheep Cell Agglutination Titers: Unabsorbed	Sheep Cell Agglutination Titers: After Absorption with Guinea Pig Kidney	Sheep Cell Agglutination Titers: After Absorption with Beef Erythrocytes	Sedimentation Rate, mm. per hr.	Serum Bilirubin (Total mg. per 100 cc.)	Ceph. Flocculation (at 48 hr.)	Thymol Turbulence (MacLagen units)	Bromosulfalein: Per Cent Retention at 45 Minutes
1952														
Oct. 16	1	9,300	79	8	13	0	1:28			24				
Oct. 20	5	7,900	29	3	66	2				24	0.45			
Oct. 24	9	9,900	28	4	67	2	1:7168	1:224	1:3.5					20
Oct. 27	12	11,600	26	8	66	3								
Oct. 28	13	16,100	22	0	77	4	1:1792	1:224	0		0.90	4+	41	33
Oct. 31	16	8,000	27	0	70	17								
Nov. 3	19						1:3584	1:112	0	30		3+		2
Nov. 5	21	8,200	26	2	66	2					0.60			
Nov. 19	35											2+	32	
Nov. 21	37	6,300	41	0	57	0	1:448	1:28	0					
Nov. 24	40	6,000	38	0	63	0							31	3
Outpatient														
Dec. 19		7,000	65	0	31	0	1:448	1:14	0	6				1.5
1953														
Jan. 7		6,800					1:56			8			26	
Jan. 30		5,600	58	0	41	0							9.5	
Feb. 14							1:14							

ties. In addition, severe frontal and occipital headache, anorexia, malaise, chills and fever developed.

On admission the patient appeared to be acutely ill and lethargic. The face and trunk were slightly erythematous. The temperature was 104° F., the pulse rate 100 per minute and respirations 20 per minute. Slight enlargement of lymph nodes in the posterior cervical, axillary, inguinal and femoral regions on both sides was noted.

Leukocytes numbered 9,300 per cu. mm. of blood—79 per cent neutrophils, 13 per cent lymphocytes, and 8 per cent monocytes. No abnormal lymphocytes were seen. The number of erythrocytes and the hemoglobin content were within normal limits. The sedimentation rate (Wintrobe) was 24 mm. in one hour. The heterophile antibody titer was 1:28. These and other subsequent pertinent laboratory findings are shown in Table 1.

During the first four days of hospitalization, the temperature ranged from 99° F. to 105° F. daily. No abnormalities were noted in a roentgenogram of the chest or in an electrocardiogram. Results of urinalyses, serological tests for syphilis, examination of blood smears for malaria parasites, cultures of blood and urine, stool examinations and cultures, examination and culture of material from the throat, spinal fluid examination, and agglutination tests for typhoid, paratyphoid, brucella and bacillus Proteus OX_{19} were all negative.

Although the patient's spiking temperature declined somewhat, ranging from 100° F. to 102° F., increasing malaise and progressively more severe soreness of the throat was noted. Pronounced pharyngeal hyperemia and extensive edema involving the uvula and soft palate was demonstrated. Only normal flora grew on repeated cultures of material from the throat. The lymph nodes in the anterior cervical regions became enlarged and the swelling became strikingly prominent in all other areas.

On October 20, the fifth hospital day, leukocytes numbered 7,900 per cu. mm., with 66 per cent lymphocytes, of which 2 per cent were abnormal. On October 24 the heterophile antibody titer was 1:7168, with a titer of 1:224 after absorption with guinea pig kidney, and 1:3.5 after beef erythrocyte absorption. An electrocardiogram showed abnormal T-wave inversion in precordial leads V_4, V_5 and V_6 (Figure 1).

On October 25 administration of oxytetracycline (Terramycin) was begun, in dosage of 500 mg. by mouth every six hours. Despite intensive supportive therapy, the patient's condition appeared to deteriorate. The fever continued as before; anorexia and malaise were profound; pharyngeal pain became so severe that even with the transient relief provided by narcotics, oral ingestion of any material became impossible. A protodiastolic gallop rhythm was heard at the cardiac apex, and an electrocardiogram showed further T-wave inversion in precordial leads V_5 and V_6. The cephalin flocculation reaction was 4 plus in 48 hours, and bromsulfalein retention was 33 per cent in 45 minutes. When Terramycin was discontinued on October 28 after a total of 7 gm. had been given, the patient appeared prostrate.

Administration of corticotropin was begun on the fourteenth hospital day. Twenty-five milligrams in 1,000 milliliters of 5 per cent glucose in water was given by intravenous drip over a period of ten hours. This was repeated the following day. Subsequently daily doses were reduced by 5 mg., until at the termination of therapy after six days a total of 100 mg. of corticotropin had been given. The patient's

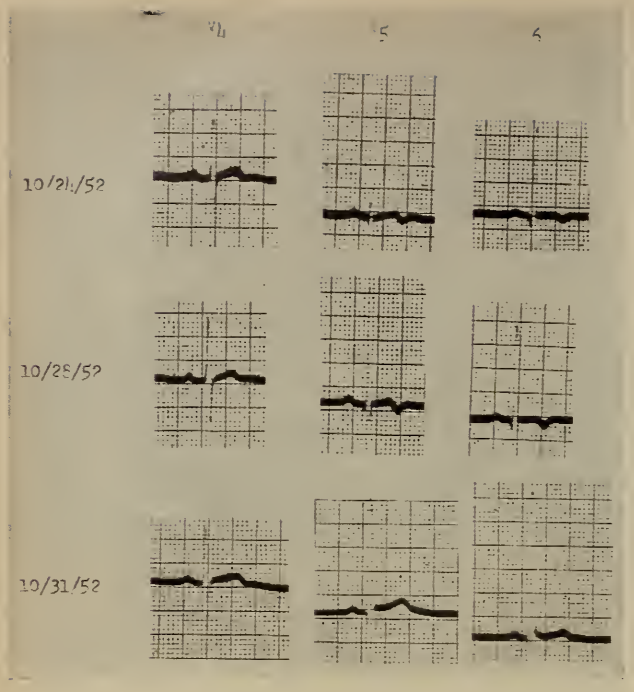

Figure 1.—Precordial leads V_4, V_5, and V_6 showing reversal of T-wave abnormalities 48 hours after onset of corticotropin therapy.

temperature dropped to normal on the first day of corticotropin therapy and remained normal thereafter. By the end of the second day of therapy, clinical improvement was striking. The patient became progressively more alert, pharyngeal edema and lymphadenopathy subsided, and heart sounds and electrocardiographic tracings returned to normal. Ravenous appetite developed and the patient rapidly gained weight and strength despite refusal to remain in bed after discontinuance of corticotropin therapy. The swelling of the lymph nodes regressed completely. The leukocyte content and differential returned to normal; abnormal lymphocytes were no longer detected in peripheral blood, and the heterophile antibody titer began to decline (Table 1).

The patient was discharged from the hospital November 26. The heterophile antibody titer continued to decline (Table 1) and the patient remained clinically well.

COMMENTS

The case presented illustrates some of the important therapeutic problems in infectious mononucleosis of unusual severity. Within the first two weeks of the patient's illness, characteristic serologic, hematologic and clinical manifestations confirmed the diagnosis of infectious mononucleosis. Despite early hospitalization and the benefit of all possible supportive care, the clinical course was at first one of slow deterioration. Although jaundice and hepatomegaly never appeared, hepatic involvement was undoubtedly present to some degree, as evidenced by the abnormality of blood chemical determinations. In addition the clinical change in the heart sounds and significant T-wave inversions in the electrocardiogram were indicative of myocarditis. When the ability of corticotropin to suppress the myocardial involvement in acute rheumatic fever was recalled, as well as the nonspecific benefits obtained in the treatment of acute viral hepatitis,[13] it was thus felt quite possible that the inflammatory response of tissues in this severely ill patient, even though caused by an unknown noxious stimulus, could be favorably influenced by the hormone. The well-known lymphopenic effects[8] of corticotropin also suggested its use at this time, when widespread perivascular lymphocytic infiltration seemed present.

Although the incidence of spontaneous remission in this disease makes it difficult to evaluate the effect of any therapeutic agent, the dramatic improvement in the present case, both clinically and systemically, strongly suggested that corticotropin had beneficial effect. In addition, the rapid and complete convalescence without sequelae was contrary to what might have been anticipated in so severe a case of infectious mononucleosis.

A survey of the literature has revealed only one other report[4] of a similarly severely ill patient treated with corticotropin. Rapid improvement coincident with its use was noted.

SUMMARY

A 21-year-old white male severely ill with infectious mononucleosis, with complications of hepatitis and myocarditis, was treated first with Terramycin and supportive measures but the illness became more severe. Corticotropin then was administered and the patient promptly improved.

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Renal Ectopia Associated with Pregnancy

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THE PROBLEM of a primipara entering the first stage of labor with the head of the fetus not engaged in the birth canal is difficult to diagnose and sometimes to treat. While the case here reported is extremely unusual, it presents some of the difficulties often involved.

The patient, a 20-year-old Negro, was admitted to Fresno County Hospital at 4 a.m. January 28, 1953. She said that labor had begun two hours before admission and that pains were occurring every 10 to 15 minutes. The patient had had no prenatal medical care. The last menstrual period was on April 11, making the estimated date of confinement January 16. Spontaneous abortion at two months terminated a previous pregnancy some three years earlier.

The blood pressure was 122/62. The fundus of the uterus was 37 cm. by MacDonald's measurement. The fetal vertex was not engaged in the birth canal and the cervix was not effaced. The fetal heart was heard in the right lower quadrant of the abdomen and the rate was 144. For the next 12 hours labor was desultory and in that period the patient was urged to ingest fluids and was made to walk. In x-ray films the pelvis was seen to be large and gynecoid. Labor became well established after the first 12 hours, contractions 30 to 40 seconds in duration occurring every 3 minutes. The cervix then was effaced 90 degrees and dilated 2 cm. The membranes had ruptured spontaneously an hour before. Hillis' maneuver did not depress the head into the pelvis. The patient was observed for two hours longer and cervical dilation progressed to 7 cm. but there was no descent of the head.

With a preoperative diagnosis of dystocia, probably caused by a pelvic tumor possibly fibromyoma, a lower segment transverse cesarean section was done and a viable infant weighing 7 pounds 6 ounces was delivered. After the uterine incision was closed the pelvis was explored and a mass 6 x 6 x 4 cm. was observed lying on the sacral promontory. The peritoneum was incised and the mass was identified as a kidney with the pelvis facing the right side. The left kidney was then palpated and found to be in normal position. The incision was closed and the patient made uneventful recovery.

In an intravenous pyelogram taken on the sixth postpartum day the ectopic kidney was observed to be excreting dye normally. Slight hydro-ureter consistent with pregnancy was noted on the normal side. The patient was discharged on the eighth postpartum day. She was examined six weeks and three months later and no abnormalities were observed.

DISCUSSION

Pelvic ectopia associated with pregnancy is rare. The most extensive review of this condition is found in the *Obstetrical and Gynecological Survey* of 1937, page 737. In the case here reported the condition was not diagnosed until after labor had started, but it can be discovered by careful pelvic examination in the prenatal period. Pelvimetry, urographic examination and other urologic studies should then be carried out. Decision as to whether to attempt delivery by the vaginal route or carry out cesarean section is less difficult now that the latter has become relatively safe.

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EDITORIAL

Doctors, Veterans and Citizens

CALIFORNIA PHYSICIANS have taken the lead in efforts to provide high-quality, personalized medical care for veterans with service-connected conditions. Through the California Physicians' Service Veterans Home Town Care Program, the medical profession of this state has not only provided outstanding care for thousands of veterans, it has done so at a cost to the government less than the cost of care provided directly by the Veterans Administration. This is just as it should be, since it is always more economical to arrange for and distribute medical services at the local than at the federal level.

There are approximately 20,272,000 veterans in the United States, of whom 1,614,000 reside in California. Of this number in California, about 260,000 have a condition incurred in service for which they are entitled to medical out-patient and hospital care at government expense. These are federal estimates. The actual case load under out-patient treatment in California averages 20,400 veterans per month, of which total 12,000 are treated by CPS physician members, 7400 are treated in VA out-patient clinics, and 1000 by private physicians not members of CPS. The VA operates out-patient clinics in the Regional Offices in San Francisco, Oakland, Los Angeles and San Diego.

Reliable estimates indicate that the average cost per visit in the Veterans Administration clinics is $11.38, as compared with an average cost of $5.90 per visit under CPS Home Town Care. If every veteran in California with a service-connected disability were treated by his family physician, it is computed that there would be a direct saving of almost $700,000 a year to the government.

In addition to this out-patient problem, there is, of course, the hospital problem. Official figures show that 85 per cent of patients discharged from VA hospitals during 1952 had been admitted for non-service connected conditions. Since the average stay in a VA general medical and surgical hospital is four times that in similar civilian hospitals, it is obvious that veterans with non-service connected conditions of this kind could be taken care of much more economically and efficiently under local private or county auspices. The amount of money that would be saved in such circumstances is literally huge. The efficiency of medical care that would be rendered is probably greater.

In addition to all of the above, the medical profession is faced with aid in the pension and compensation program. Compensation and pension payments for the fiscal year 1953 amounted to $1,768,-225,496. According to a report in the minutes of the thirty-first meeting of the Council of Chief Consultants to the Veterans Administration, held last September in Washington, D. C., the conditions for which veterans are receiving compensation include the following:

Condition	Number of veterans receiving compensation
Muscle injuries	190,000
Anxiety reaction and hysteria	186,000
Flat feet	80,000
Scars, tender	36,000
Dermatophytosis	36,000
Painful low back	28,000
Frozen feet	27,000
Rheumatic heart disease	26,072
Varicose veins	23,000
Bursitis and synovitis	15,000
Pleural cavity injuries	11,000
Bronchitis	9,000
Hydronephrosis, cystitis and prostatitis	6,100
Gastric resection	3,500
Amebic dysentery	2,500
Hyperthyroidism	555

Attention was called to the compensation and pension aspect of the veterans program in a recent letter addressed by a California physician to the

editor of the *Journal of the American Medical Association*.[1] Citing the minutes of the Council of Consultants previously referred to, the correspondent noted that in connection with the 190,000 pensions for muscles injuries, one of the consultants had said that "people who simply complain long and loud are given a rating." The correspondent also called attention to information, contained in the minutes, that a recent survey had shown that 85 per cent of the 3,500 veterans who were given pensions because of gastric resection were well and working, but that, even so, most such veterans get 40 per cent compensation.

Since the author of the letter to the editor of the J.A.M.A. obviously possesses an inquiring mind (who else would peruse the document from which his information came) perhaps it is well to make further use of his perspicacity by quoting further from his epistle:

"In addition to the billions being spent on compensation and pensions for the conditions above mentioned, a serious professional problem arises from the fact that every VA regional office and hospital is being cluttered up with these persons getting their chests, sinuses, backs, feet and so forth examined, reviewed, and 'treated' every few months in order to maintain their claims. The classic example in one regional office is the man with a low back strain who has been getting heat treatment every week for six years.

"What can the profession do about this situation? (1) It should publicize the facts. Perhaps an awakened public will elect less wasteful or generous congressmen. (2) It should consider suspending esoteric research [in VA hospitals] until it has established criteria that will permit better evaluation of the above alleged diseases. (3) It should consider assisting the medical director of the Veterans Administration so that his policy for dental programs might be extended to medical programs.

"The very able and conscientious director (Admiral Boone) reports that there is a backlog of almost 400,000 persons awaiting dental treatment, not because of lack of dentists but because Congress did not appropriate sufficient funds for the program. Indeed, it is predicted that the backlog will exceed 800,000 by June 1955, unless Congress appropriates over 50 million dollars. The medical director makes the significant statement: 'A critical analysis of the out-patient dental activities indicates that continued repeated care of service-connected, non-compensable dental disabilities is a major factor in the increasing cost of the program. My advisors feel that it is administratively and professionally sound to restrict benefits for service connected, non-compensable dental disabilities to the furnishing of maximum benefits on a one-time basis, and that it should not be mandatory under general regulations for the Veterans Administration to assume responsibility for continued therapy.' Except for those veterans truly wounded in action or with other truly service connected conditions that can be benefited by medical science, some sort of halt should be called to continued, ineffective treatment for non-disabling and questionable conditions. The enormous compensation paid for these minor conditions should be reduced to a realistic and equitable figure. The public deserves no less."

REFERENCE

1. Sisson, M. A.: Correspondence, J.A.M.A., 154:1372, April 17, 1954.

California MEDICAL ASSOCIATION

NOTICES & REPORTS

Council Meeting Minutes

Tentative Draft: Minutes of the 405th Meeting of the Council of the California Medical Association, San Francisco, March 21, 1954.

The meeting was called to order by Chairman Shipman in the California Room, Palace Hotel, San Francisco, at 9:30 a.m., Sunday, March 21, 1954.

Roll Call:

Present were President Green, President-Elect Morrison, Speaker Charnock, Vice-Speaker Bailey, Councilors West, Wheeler, Loos, Sampson, Pearman, Ray, Shipman, Lum, Bostick, Teall, Varden, Frees, Carey, Kirchner and Reynolds, Secretary Daniels and Editor Wilbur.

A quorum present and acting.

Present by invitation during all or a part of the meeting were Messrs. Hunton, Thomas, Clancy, Gillette and Pettis of C.M.A. staff; legal counsel Hassard, county society executive secretaries Scheuber of Alameda-Contra Costa, Bannister of Orange, Foster of Sacramento, Nute of San Diego, Wood of San Mateo and Donovan of Santa Clara; Dr. Malcolm Merrill, state director of public health; Dr. H. L. Gartshore, representing the psychiatrists; Dr. T. J. Rossitto, secretary of the Placer-Nevada-Sierra County Medical Society; Dr. S. M. Tepper, president of Imperial County Medical Society; Dr. W. J. Rudee, president of Sonoma County Medical Society; Dr. Samuel R. Sherman, president of San Francisco Medical Society; Dr. Burt Davis, president of Santa Clara County Medical Society; Doctors Leslie B. Magoon and Henry Gibbons III of the Medical Services Commission; Dr. Francis J. Cox, chairman of the Committee on Industrial Accident Commission; Dr. Dwight H. Murray, chairman of the Committee on Public Policy and Legislation, and his son, Dwight H. Murray, Jr.; Ben H. Read, executive secretary of the Public Health League of California, and Rollen Waterson, health insurance consultant.

1. *Minutes for Approval:*

(a) On motion duly made and seconded, minutes of the 404th Council meeting, held January 30, 1954, were approved.

(b) On motion duly made and seconded, minutes of the 241st Executive Committee meeting, held January 30, 1954, were approved.

(c) On motion duly made and seconded, minutes of the 242nd Executive Committee meeting, held February 24, 1954, were approved.

2. *Membership:*

(a) A report of membership as of March 19, 1954, was received and ordered filed.

(b) On motion duly made and seconded in each instance, Retired Membership was voted to 13 applicants. These were: John A. Azevedo, Katherine Bishop, Earl B. Newton, George E. Walton, Alameda-Contra Costa County; Charles O. Mitchell, Fresno

JOHN W. GREEN, M.D. . . . . President
ARLO A. MORRISON, M.D. . . . . President-Elect
DONALD A. CHARNOCK, M.D. . . . . Speaker
WILBUR BAILEY, M.D. . . . . Vice-Speaker
SIDNEY J. SHIPMAN, M.D. . . . . Council Chairman
ALBERT C. DANIELS, M.D. . . . . Secretary-Treasurer
DONALD D. LUM, M.D. . Chairman, Executive Committee
DWIGHT L. WILBUR, M.D. . . . . Editor
JOHN HUNTON . . . . . Executive Secretary
General Office, 450 Sutter Street, San Francisco 8
ED CLANCY . . . . . Director of Public Relations
Southern California Office:
417 South Hill Street, Los Angeles 13 • Phone MAdison 6-0683

County; Charles R. Jones, San Diego County; James R. Dillon, Joseph H. D. Roger, Henry J. Sartori, San Francisco County; G. B. Jackson, William D. Sink, Santa Barbara County; Alexander C. Anderson, Sonoma County, and William Felberbaum, Ventura County.

(c) On motion duly made and seconded in each instance, Associate Membership was voted for 24 applicants. These were: Warren Beasley, Fresno County; John A. Carswell, Humboldt County; Maxwell J. Binder, John D. Briggs, C. G. Craddock, Jr., Albert E. Fleming, Lilly A. Geiger, John R. Geary, Jr., Helen Marie Hale, Maria A. Herz, Miriam Hubbell, Sanford H. Lawrence, Alan Leslie, Theodore A. Montgomery, Bernard J. O'Loughlin, Paulline O. Roberts, David H. Solomon, Bertram Taub, Los Angeles County; Stanley E. Coffey, Napa County; Lewis E. Nolan, Sacramento County; Robert H. McCrackin, San Diego County; Alfred W. Childs, San Francisco County; Robert D. Rowan, Santa Clara County, and Edith L. Mythaler, Stanislaus County.

(d) On motion duly made and seconded, reductions of dues were approved for 25 applicants because of postgraduate study or protracted illness.

3. *Financial:*

(a) A report of bank balances as of March 19, 1954, was received and ordered filed.

(b) On motion duly made and seconded, it was voted to refer to the Executive Committee a request from the Sacramento Society for Medical Improvement for funds to assist in a public relations program.

(c) Doctor Charnock outlined a meeting of medical students planned for April 25 in Los Angeles. On motion duly made and seconded, it was unanimously voted to approve the expenditure of an estimated $1,000 to underwrite this meeting.

(d) On motion duly made and seconded, it was unanimously voted to add $1,000 to the current appropriation for the Medical Services Commission, to carry that commission through the fiscal year.

4. *Medical Care for Mexican Nationals:*

Councilor Varden and Dr. S. M. Tepper, president of the Imperial County Medical Society, discussed the situation surrounding the care of Mexican nationals brought to that county as agricultural workers. Questions have been raised as to the propriety of handling the medical care of these workers through a closed-panel medical group. On motion duly made and seconded, it was voted to refer this question to the Executive Committee for further study.

5. *San Jose Hospital Situation:*

Doctors Burt Davis and Leslie B. Magoon discussed the situation surrounding a hospital in San Jose, where the selection of the attending staff has been taken over by the hospital administrator. The Santa Clara County Medical Society has been working to clarify this situation. On motion duly made and seconded, it was unanimously voted to appropriate $2,000 to aid in this work.

6. *State Department of Public Health:*

Dr. Malcolm Merrill, State Director of Public Health, discussed the current status of poliomyelitis vaccine tests, gamma globulin, the investigation of encephalitis etiology and several federal legislative proposals now before Congress. He also reported that a statewide morbidity survey, previously approved by the Council would get under way in about another 30 days.

On motion duly made and seconded, it was voted unanimously to express to Dr. Wilton L. Halverson, recently resigned as State Director of Public Health, the Council's appreciation for his past services and best wishes for his future activities.

The chairman greeted Dr. Merrill in his new position and expressed the Council's wish to work cooperatively with him and his department.

7. *Medical Services Commission:*

Dr. Francis J. Cox reported on a pilot study undertaken by his subcommittee of the Medical Services Commission on the question of relative values in fee schedules. He suggested that the pilot study be continued and that possibly in the future a statewide study be undertaken. On motion duly made and seconded, it was unanimously voted to approve the payment of about $500 in costs incurred in this study to date.

Mr. Rollen Waterson presented a report which he had previously made to the Medical Services Commission relative to health insurance. The Commission has not yet acted upon this report but plans to meet April 10 for that purpose. After considerable discussion, it was moved, seconded and voted to approve the report in principle, without approving its details, and to consider the report by mail ballot of the Council following its presentation after April 10 by the Medical Services Commission.

8. *California Physicians' Service:*

Mr. K. L. Hamman, executive vice-president of California Physicians' Service, reported that the membership is now about 627,000 members and gaining, that about 75 per cent of the groups are from 5 to 24 people, and that aside from three large statewide groups, the average group is 17 people. He also reported that the dissolution of joint opera-

tions in Southern California had been completed in January.

9. *Committee on Industrial Accident Commission:*

Dr. Francis J. Cox, chairman of the Committee on Industrial Accident Commission, gave a progress report on the application for more equitable industrial fees. A meeting of interested groups is scheduled for March 22 and a third public hearing before the Industrial Accident Commission for March 29.

10. *Committee on Associated Societies and Technical Groups:*

Dr. H. Gordon MacLean, chairman, reported that his committee had investigated the proposed recognition of organizations of medical assistants and recommended their approval. On motion duly made and seconded, it was voted to approve the report.

11. *Public Policy and Legislation:*

Dr. Dwight H. Murray, chairman of the Committee on Public Policy and Legislation, discussed a proposal to eliminate from the state budget an item for subsidizing the training of public health physicians and other personnel. On motion duly made and seconded, it was voted to disapprove the inclusion of this item in the state budget.

Mr. Ben H. Read, executive secretary of the Public Health League of California, reported on studies currently being undertaken by interim committees of the Legislature and on proposed changes in the narcotics laws. It was agreed the Association should work with a member of the Assembly on the latter subject.

12. *Advisory Planning Committee:*

Mr. Hunton reported on a meeting of the committee and requested the Council to appoint Mr. William L. Scheuber, executive secretary of the Alameda-Contra Costa Medical Association, as a member of the committee. On motion duly made and seconded, this appointment was approved.

13. *Physicians' Telephone Exchange Services:*

Mr. Hunton reported on a meeting held March 19 with representatives of several physicians' telephone exchange services who have organized the Physicians' Telephone Exchanges of California and sought approval of the Association. On motion duly made and seconded, it was voted to authorize Mr. Hunton to continue working with this group to determine the requirements of such services.

14. *Trustees of California Physicians' Service:*

On motion duly made and seconded, it was voted to nominate Doctors C. Glenn Curtis, Philip N. Baxter, Thomas N. Foster and N. Norman O'Neill to succeed themselves as Trustees of California Physicians' Service.

15. *Committee on Public Health and Public Agencies:*

Dr. Hollis L. Carey reported for the committee, which recommended that the State of California not withhold payments for the care of tuberculosis patients who are part-pay patients. On motion duly made and seconded, this recommendation was approved.

On motion duly made and seconded, it was voted to approve the cooperation of county medical societies with county boards of supervisors in implementing the above action and in local application of the means test.

On motion duly made and seconded, it was voted to approve the action of the committee in approving a study of the blind, using funds from the Kellogg Foundation.

16. *Cancer Commission:*

Councilor Teall discussed a pamphlet issued by the American Cancer Society and referring to the referral of patients to a panel of interested physicians. The Sacramento Society for Medical Improvement has adopted a report criticizing the implications of such referrals. On motion duly made and seconded, it was voted to refer the Sacramento report to the Cancer Commission.

17. *Disciplinary Procedure:*

Dr. Charnock reported that his efforts at conciliation in a disciplinary procedure involving two members in San Diego County had been fruitless.

18. *Vocational Nursing:*

Dr. Morrison reported that a proposed list of training procedures for vocational nurses would be forwarded to the members of the Council, whose comments and suggestions are solicited.

19. *Mental Health:*

Dr. H. L. Gartshore recommended that a committee with a representative of each of the three psychiatric societies, north, south and central, be appointed to assist and advise the Council on psychiatric problems.

Adjournment:

There being no further business to come before it, the meeting was adjourned at 5:30 p.m.

SIDNEY J. SHIPMAN, M.D., *Chairman*
ALBERT C. DANIELS, M.D., *Secretary*

In Memoriam

Fowler, Harry L. Died in Los Angeles, March 12, 1954, aged 60. Graduate of Rush Medical College, Chicago, 1922. Licensed in California in 1922. Doctor Fowler was a member of the Los Angeles County Medical Association.

✣

Fraser, Donald A. Died in San Francisco, March 21, 1954, aged 68. Graduate of Cooper Medical College, San Francisco, 1909. Licensed in California in 1909. Doctor Fraser was a member of the Solano County Medical Society.

✣

Jensen, Jens P. Died in San Francisco, March 29, 1954, aged 64. Graduate of Stanford University School of Medicine, Stanford University-San Francisco, 1922. Licensed in California in 1922. Doctor Jensen was a member of the San Francisco Medical Society.

✣

Kilgore, George L. Died in San Diego, January 13, 1954, aged 51, of carcinoma of the pancreas. Graduate of Emory University School of Medicine, Emory University, Georgia, 1926. Licensed in California in 1931. Doctor Kilgore was a member of the San Diego County Medical Society.

✣

Kraaymes, Henry J. L. Died in Oakland, February 6, 1954, aged 54, of myocardial inclusion. Graduate of Rijks-Universiteit te Groningen Medische Faculteit, Netherlands, 1935. Licensed in California in 1937. Doctor Kraaymes was a member of the Alameda-Contra Costa Medical Association.

✣

Lashlee, Claude H. Died in San Bernardino, March 20, 1954, aged 74. Graduate of Hahnemann Medical College of the Pacific, San Francisco, 1904. Licensed in California in 1904. Doctor Lashlee was a member of the San Bernardino County Medical Society.

✣

Patton, Fred P. Died in North Sacramento, February 28, 1954, aged 80, of cerebral hemorrhage. Graduate of Rush Medical College, Chicago, 1901. Licensed in California in 1943. Doctor Patton was a member of the Sacramento Society for Medical Improvement.

✣

Robbins, David R. Died in Los Angeles, March 18, 1954, aged 62, of coronary occlusion. Graduate of the University of Oregon Medical School, Portland, 1923. Licensed in California in 1924. Doctor Robbins was a member of the Los Angeles County Medical Association.

Sharp, Harlow B. Died in Fresno, March 17, 1954, aged 44, of coronary artery disease. Graduate of Rush Medical College, Chicago, 1937. Licensed in California in 1945. Doctor Sharp was a member of the Fresno County Medical Society.

✣

Siebert, Alfred A. Died in Alameda, March 21, 1954, aged 58. Graduate of St. Louis University School of Medicine, Missouri, 1927. Licensed in California in 1929. Doctor Siebert was a member of the Alameda-Contra Costa Medical Association.

✣

Singer, Jacob J. Died in Beverly Hills, April 13, 1954, aged 71, of coronary artery disease. Graduate of Washington University School of Medicine, St. Louis, Missouri, 1904. Licensed in California in 1937. Doctor Singer was a retired member of the Los Angeles County Medical Association, the California Medical Association, and an associate member of the American Medical Association.

✣

Smith, Wilburn. Died in Glendale, April 6, 1954, aged 74. Graduate of the American Medical Missionary College, Battle Creek, Michigan, and Chicago, Illinois, 1905. Licensed in California in 1913. Doctor Smith was a member of the Los Angeles County Medical Association.

✣

Starr, Russell W. Died in Los Angeles, April 8, 1954, aged 57. Graduate of the College of Medical Evangelists Loma Linda-Los Angeles, 1923. Licensed in California in 1923. Doctor Starr was a member of the Los Angeles County Medical Association.

✣

Stimson, Horace P. Died in Inglewood, March 29, 1954, aged 56. Graduate of Harvard Medical School, Boston, 1922. Licensed in California in 1946. Doctor Stimson was a member of the Los Angeles County Medical Association.

✣

Swanson, Charles F. Died in Los Angeles, March 17, 1954, aged 71. Graduate of Chicago College of Medicine and Surgery, Illinois, 1910. Licensed in California in 1921. Doctor Swanson was a member of the Los Angeles County Medical Association.

✣

Watson, Richard G. Died in Oakland, December 18, 1953, aged 64. Graduate of Columbia University College of Physicians and Surgeons, New York, 1918. Licensed in California in 1919. Doctor Watson was a retired member of the Alameda-Contra Costa Medical Association, the California Medical Association, and an Associate member of the American Medical Association.

NEWS & NOTES

NATIONAL • STATE • COUNTY

ALAMEDA

Dr. Joseph Stokes, Jr., member of the faculty of the University of Pennsylvania, will be visiting lecturer for the third annual **Clifford Sweet Lectureship** at Children's Hospital of the East Bay in Oakland, California, May 26, 27, and 28. Morning and afternoon meetings will be held Wednesday, Thursday, and Friday at the hospital, and the Sweet Lecture will be given Friday evening following a banquet at the Berkeley Women's City Club in Berkeley. There Dr. Stokes will speak on "Viral Hepatitis as Related to Pediatrics."

All sessions will be open to physicians wishing to attend. Reservations for the Friday night banquet and lecture may be made through Children's Hospital of the East Bay.

The Clifford Sweet lectureship was instituted two years ago by the medical staff of Children's Hospital of the East Bay in honor of Dr. Sweet, for 30 years chief of staff there, and now emeritus chief of medicine.

* * *

Officers of the **East Bay Psychiatric Association** for the year 1954 are as follows: Dr. Albert Ackerman, president; Dr. Douglas Kelley, president-elect; Dr. Dora Fishback, secretary, all of Berkeley; and Dr. J. E. Neighbor, treasurer, Walnut Creek. Dr. William Sheehy of Berkeley and Dr. Herbert C. Archibald of Orinda were elected councillors.

LOS ANGELES

The American Proctologic Society will hold its 53rd Annual Meeting at the Hotel Statler in Los Angeles on June 2-5, 1954.

In addition to numerous scientific papers on proctologic subjects, there will be symposia both on anorectal and colonic surgery.

Physicians desiring to attend the meeting should communicate with the secretary, Dr. Stuart T. Ross, 131 Fulton Avenue, Hempstead, New York.

* * *

A $19,000 grant to the White Memorial Hospital and the College of Medical Evangelists for the establishment of a **multiple sclerosis diagnostic and rehabilitation clinic** was announced by Dr. J. J. Karpeles, chairman of the Multiple Sclerosis Society of Southern California.

The White Memorial Clinic will accept for intensive study and treatment a limited number of patients who have multiple sclerosis or in whom it is suspected. These patients will be charged for services on a sliding scale based on their ability to pay.

* * *

Dr. Donald C. Collins, Hollywood, was installed as president of the International Academy of Proctology at the annual convention of the organization held last month in Chicago.

SAN FRANCISCO

The American Society for the Study of Sterility will hold its 1954 convention at the St. Francis Hotel, San Francisco, on Friday, Saturday and Sunday, June 18, 19 and 20, immediately preceding the American Medical Association meeting. The meetings are open to all physicians interested in this field. The registration fee for non-members is $10. (Medical students, interns and residents may register without charge.) Registration should be made in advance by communicating with Herbert H. Thomas, M.D., Secretary, American Society for the Study of Sterility, 920 South 19th Street, Birmingham, Alabama.

* * *

Dr. John J. Sampson of San Francisco was elected vice-president of the American Heart Association at the Annual Meeting of the organization in Chicago last month. Dr. Francis L. Chamberlain, a past president of the San Francisco Heart Association, was elected to the board of directors of the national group, and Drs. Ellen Brown and Maurice Sokolow to membership in the assembly.

* * *

Developments in the field of **research on high blood pressure** are described in five scientific reports of original investigative work which are included in the newly published proceedings of the 1953 Annual Meeting of the Council for High Blood Pressure Research of the American Heart Association. The cloth bound, 96-page hard cover monograph is available from the California Heart Association, 45 Second Street, San Francisco, at a cost of $2 a copy. The brief reports, which deal with relations between endocrine secretions and electrolyte and fluid balance and hypertension, were presented by authorities who summarized their own recent work and the investigations of others in the field.

GENERAL

Persons having material they wish to present at the second annual meeting of the **Inter-Society Cytology Council** which will be held in Boston, November 12 and 13, 1954, are invited to submit three copies of the title and an informative abstract of not more than 200 words to Dr. John B. Graham, Chairman of the Program Committee, 32 Fruit Street, Boston, Massachusetts, before July 15, 1954. Abstracts of all papers accepted will be published in the official program. With regard to material, the announcement said: "The diagnostic accuracy in cancer of the cervix and the lung is so well established that further verification at this meeting is not indicated. Particular attention is suggested for the endometrium and lesions of the gastrointestinal and urinary tract."

* * *

Dr. Daniel Lieberman was appointed superintendent of Mendocino State Hospital, effective April 1, by Dr. Walter Rapaport, who recently became director of the State Department of Mental Hygiene. Dr. Lieberman succeeds Dr. Reginald Rood, who will serve at the new state hospital at Atascadero.

* * *

The sixth annual **American Congress on Obstetrics and Gynecology** will be held at the Palmer House, Chicago, December 13-17, 1954. Sponsored by the American Committee on Maternal Welfare, Inc., and the American Academy of Obstetrics and Gynecology, it will bring together the four major groups concerned in the provision

of better care for mothers and babies—medicine, nursing, public health and hospital administration, according to the announcement of the meeting.

Information about the meeting may be obtained by writing to the Sixth American Congress on Obstetrics and Gynecology, 116 South Michigan Avenue, Chicago 3, Illinois.

POSTGRADUATE EDUCATION NOTICES

UNIVERSITY OF CALIFORNIA AT LOS ANGELES

1. Three-Day Symposia: Otolaryngology in General Practice, April 28.
2. Anesthesiology, May 13-14.
3. Techniques of Hypnosis, May 17, 18, 19.
4. Venereal Disease Public Health Conference, May 24-28.
5. Third Annual Laboratory Technicians Symposium, June 19-20.

Contact: Mrs. Margaret H. Griffith, Assistant Head of Postgraduate Instruction, Medical Extension, University of California, Los Angeles 24, California.

UNIVERSITY OF CALIFORNIA, SAN FRANCISCO

Course in Internal Medicine, American College of Physicians

Date: June 14 through 18, all day, University of California Extension Building, 540 Powell Street, San Francisco.

Conference on General Surgery

Date: September 13 through 17, all day, at Medical Center. This conference will be offered for the purpose of stressing the newer concepts, methods of diagnosis, treatment and techniques in surgery. Throughout the session emphasis will be placed on the diagnosis and treatment of malignant lesions. Instruction will consist of didactic periods, panel discussions, and actual operative demonstrations which will be televised from the operating room to the lecture hall. This program will be designed for general practitioners who are doing surgery. The class will be limited.

Conference on Fractures and Diseases of the Bone

Date: September 20 through 23, all day, San Francisco County Hospital. The program will cover the newer concepts, methods of diagnosis, treatment and techniques. There will be didactic lectures, panel discussions, and actual demonstrations of illustrative cases. The class will be limited.

Medicine for General Practitioners

Date: September 21 to December 7, Tuesday evenings, East Oakland Hospital, Oakland. This is a continuation course which is offered every year, with complete change of program and speakers. Class limited.

Evening Lectures in Medicine, Part 1 and Part 2

Date: September 16 through December 9, Thursday evenings, Mills Memorial Hospital, San Mateo. This is also a continuation course which will be of interest to both internists (Part 1) and to physicians in general practice (Part 2).

Symposium on Endocrine Diseases and Geriatrics

Date: October 22, 23, 24 (week-end), University of California Extension Building, 540 Powell Street, San Francisco. A review of recent developments in both fields, with suggestions for the management of patients past the age of fifty.

Contact: Stacy R. Mettier, M.D., Head of Postgraduate Instruction, Medical Extension, University of California Medical Center, San Francisco 22, California.

COLLEGE OF MEDICAL EVANGELISTS

Diseases and Injuries of Bones and Joints (4 weeks) Full time.

Date: July 5 through 30, 1954. Dr. Taylor's office and various hospitals. Tuition: $100.00. G. Mosser Taylor, M.D., Alonzo J. Neufeld, M.D., and Associates. Unless otherwise stated or arranged, courses will be held in Osler House, corner State and Michigan Avenues.

Contact: Chairman, Section on Graduate and Postgraduate Medical Education, College of Medical Evangelists, 312 North Boyle Avenue, Los Angeles 33, California.

Medical Dates Bulletin

THIS BULLETIN of the dates of postgraduate education assemblies and the meetings of various medical organizations in California is supplied by the Committee on Postgraduate Activities of the California Medical Association.

MAY

California Chapter, American College of Chest Physicians, Los Angeles, May 8.

Western Industrial Medical Association, Los Angeles, May 8.

California Medical Association Convention, Los Angeles, May 9-13.

Clifford Sweet Lectureship—May 26-28, Children's Hospital of the East Bay, Oakland.

JUNE

American College of Chest Physicians, San Francisco, June 17-20.

American Geriatrics Society—San Francisco, June 17-19.

American Medical Association, Annual Sessions, 1954, San Francisco, June 21-25.

OCTOBER

California Society of Internal Medicine, Yosemite National Park, October 2.

Los Angeles County Heart Association, Annual Professional Symposium on Heart Disease, October 13-14.

California Academy of General Practice, Sixth Annual Scientific Assembly, Los Angeles, October 24, 25, 26, 27.

NOVEMBER

Los Angeles Urologic Research Convention, Los Angeles, November 8-12.

C.M.A. REGIONAL AND MEDICAL INSTITUTES

SOUTHERN COUNTIES, Palm Springs, April 22-23.

AMERICAN MEDICAL ASSOCIATION

Annual Session, 1954, San Francisco, June 21-25.
Clinical Session, 1954, Miami, November 30-December 3.
Annual Session, 1955, Atlantic City, June 6-10.
Clinical Session, 1955, Boston, November 29-December 2.

INFORMATION

Gamma Globulin and Poliomyelitis Vaccine

A COMMITTEE OF EXPERTS, asked by the U. S. Public Health Service to evaluate data collected during 1953 on the use of gamma globulin in the prophylaxis of poliomyelitis, has reported its preliminary findings. In general, the committee concluded that beneficial effects were not demonstrated, either in the inoculation of family associates of poliomyelitis cases, or in the community-wide inoculation of children in selected epidemic areas.

In 23 communities threatened by an epidemic, the biologic was given to all children in selected age groups. Because of the difficulty in predicting the course of a poliomyelitis epidemic in any given area, however, the inoculations in most of these communities were given after the peak of the epidemic had been passed. It was difficult, therefore, to assess the possible effect of the mass inoculations.

To study the effect of gamma globulin when administered to familial associates, careful study was made of families in which two or more cases of poliomyelitis were recognized. The committee felt that sufficient data were collected to make a valid assessment of the biologic when used in associates of cases, and found that no measurable effect was observed. No change in the familial aggregation of cases was noted, nor was it possible to show that administration of gamma globulin to exposed persons affected the severity of paralytic illness occurring in those familial associates of cases.

The committee's studies can be summarized to indicate that, as used in 1953 in familial associates of cases and in mass inoculation of children in epidemic areas, gamma globulin could not be shown to be effective in preventing or modifying paralytic poliomyelitis. This should not be interpreted as contradicting the results of the excellently designed field trials conducted by Dr. William McD. Hammon during 1951 and 1952. Rather, the results of 1953 clearly show how difficult it may be to transfer experimental results directly into practical use.

National groups advisory to the Office of Defense Mobilization, which is responsible for the allocation of gamma globulin, soon will make recommendations concerning the use of the biologic during 1954 in the prophylaxis of poliomyelitis. California's Ad Hoc Advisory Committee on Distribution of GG and the State Board of Health have both resolved that gamma globulin should be decontrolled at the earliest possible date and this information has been passed to the office of Defense Mobilization. Gamma globulin remains available, of course, for the prevention or modification of measles and the prophylaxis of infectious hepatitis, two well-established usages of the substance.

The most promising hope for the prevention of the paralytic consequences of poliomyelitis infection lies in the development of an active immunizing agent. A number of such preparations have been developed in the laboratory, and during 1954 one of these will receive extensive testing in the field.

A vaccine, containing formalin-killed aliquots of all three types of poliomyelitis virus, has been prepared by Dr. Jonas E. Salk, Research Professor of Bacteriology, University of Pittsburgh School of Medicine. The National Foundation for Infantile Paralysis is sponsoring field studies of this vaccine, with the cooperation of state and local health departments, professional societies, and community volunteers. National groups comprising experts in virology and epidemiology have established rigid standards for the preparation of the vaccine material and for the design of the nationwide field trials. Each lot of vaccine will be assayed independently by three laboratories to establish the safety and uniform antigenicity of the vaccine. Before the extensive field trials begin, involving from 500,000 to 1,000,000 children, a minimum of 5,000 children will have been inoculated successfully with the cell-free vaccine.

TWO KINDS OF FIELD TRIAL

Two epidemiologic designs have been proposed for the field trials; both will be used in selected counties throughout the nation. In one form, the trials comprise the inoculation of children in the second grade of school with three successives doses of the vaccine. Observation of cases occurring subsequently will be made in this inoculated group, and in the uninoculated children of the first and third grades of the same school.

In the second study design, children in the first three grades of school will be inoculated, but only one-half of these, taken at random, will receive the vaccine, while the others will receive an inert material resembling the vaccine. The subsequent occurrence of cases will be studied in these two groups, the identity of the material received by a given child remaining unknown until the study is completed. The latter of these two plans is the one proposed for selected communities of California.

This report was prepared for CALIFORNIA MEDICINE by the California State Department of Public Health.

Whichever plan of study is used, the data collected will be analyzed only by a National Evaluation Center, established at the University of Michigan, and headed by Dr. Thomas Francis, Jr., professor of epidemiology of the School of Public Health of the University. Because of the great size and complexity of the field studies, no public announcement of the Evaluation Center's findings is expected until the late spring of 1955.

In California, a committee advisory to the State Department of Public Health on matters pertaining to gamma globulin and poliomyelitis vaccine has studied the proposed field trials with great care and has recommended that California participate in the studies. This committee includes representatives from the California Medical Association, the California Osteopathic Association, the California Conference of Local Health Officers, the State Board of Health, and experts in the fields of virology and epidemiology. The State Board of Health similarly has passed a resolution recommending participation in the trials.

Arrangements are now under way leading to the selection of a very few areas of the state which meet the rigid criteria established for participation in the trials. The number of these areas is further limited by the availability at an early date of the vaccine material; because of the early seasonal rise of poliomyelitis in California as compared to other parts of the country, it is essential that inoculation of children be completed in California at a much earlier date than elsewhere. With the enthusiastic cooperation of physicians, health departments, and citizens of the selected communities, it is certain that California can make a significant contribution to this nationwide undertaking.

Medical Care Costs

ROLLEN WATERSON, San Francisco

MY ASSIGNMENT is to discuss the costs of services of doctors of medicine in relation to your health and welfare plans.

I know something of your problems, and of your sincere attempts to solve them. I also know something of the needs and hopes of the people you are trying to serve. And I have observed the efforts of doctors to solve the same problems, and their feelings of equal frustration.

Let's start with your complaints as administrators of Labor's health and welfare plans:

You negotiate the money to buy a plan. Then you buy one. Then some of your members come storming in, saying your plan is no good because it didn't cover this or that procedure and paid only part of the doctor's bill. Then you revise your schedule of indemnities upward, broaden the coverage, negotiate for more money from management, get it, and the same thing happens all over again. The more you cover, the more utilization you get. Doctors seem to order even more x-ray and laboratory work, run up more office calls, keep patients in the hospital longer—and you're right back where you started—in the soup.

"This has got to stop," you say. And so does management. Emphatically.

You've found that doctors' fees vary widely for the same procedures. You have found no good solution for this problem, either. If you raise your schedule of indemnities too high you'll be paying more than the lowest medical and surgical fees; if you *don't* raise them, many of your members complain because the plan doesn't pay nearly enough.

"How much," you ask the doctors, "are your services worth? We can't prepay for doctors' services if you won't tell us how much you're going to charge. And don't make it too high, or we can't get enough to pay you—don't price us out of the market.

"And furthermore, doctors, we find you are abusing the plan by seeing patients oftener and ordering more x-ray, laboratory work and hospitalization every time we add to these benefits to meet the previous increases in utilization. We can't get any more from management.

"Either stop abuses," you have told the doctors, "and set a reasonable schedule of fees to which you will adhere, or we'll go to Permanente or set up our own closed-panel plan so we can predetermine costs and thereby prepay them.

"We have to do something," you say—and I agree.

A SURVEY OF THE SERVICES DESIRED

What is to be done will be determined, eventually, not by what you or the doctors may decide to do next, but by the real needs and desires of the people

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Presented at the Health and Welfare Conference of the Northern California American Federation of Labor, San Francisco, March 20, 1954.

Mr. Waterson is Consultant in Health Insurance to the California Medical Association.

served by these plans. With this in mind, we went to your people and their families to learn what they need, and how they really feel about prepayment plans. We retained New York psychologist Ernest Dichter of the Institute for Research in Mass Motivations. He talked at length with your people and their families, and gave us an analysis of his findings. Here, in the needs and desires of the people, are the answers to your question, "What should be the objectives of prepaid medical coverage?" And here, too, surprisingly, are sound solutions to many of your problems of overutilization and spiralling costs.

First, Dr. Dichter's studies confirmed the often demonstrated fact that your people are *not* snivelling supplicants for security at someone else's expense, as some very vocal pundits would have us believe they are. Your folks don't want charity, or handouts. They don't want to be taken care of. "I can damn well take care of myself and my family," the head of the household says. He resents, deeply, any inference that he might not be strong enough to do so, or any interference that keeps him from planning and paying his own way with pride and dignity. By the fruits of his own labor, he wants to pay for insurance against the time when he might not be strong enough to be self-sufficient, and he is willing to deprive himself of other desirable things in order to do so. While he knows his employer picks up the check for his health plan, where this is the case, he still feels that this is an *earned* benefit—that he himself is paying the bill.

When asked what he wants from his health insurance, he immediately responds, "I want the works, of course! . . . Everything covered, so I don't have to pay anything extra at any time."

You, too, hear this response, and you have accepted it as a mandate. You have attempted to get complete and comprehensive coverage—with the resulting dilemma that now faces you.

But the psychologist is not fooled by these surface answers. Ask me, for example, what kind of a house I want, and I, too, will tell you I want "the works"—a twenty-room job complete with swimming pool. If you are a contractor, you'll lose your shirt if you start building that house before you find out what I *really* want. But that's what you have done with your health plans.

THE RESULTS OF THE SURVEY

Your members and their wives are not only better motivated than some people think—they are also more understanding and better informed of the facts of insurance than you think. Here's what Dr. Dichter found your people really want—without using leading questions—when they began thinking about their health insurance problems:

First, they want a plan that will, with certainty, pay for the catastrophic or major costs of illness. They beefed about the cost of little things—measles and mumps and colds and the 'flu—in the way we all complain about the necessary costs of living. But a surprising majority knew that coverage for these little things lead to abuse and overutilization, and run the cost up for everyone. In their own language, they suggest co-insurance and deductible features as if they were experienced underwriters or trained actuaries. Incidentally, they don't like your term "welfare." They prefer "insurance." They feel some charity stigma—of being taken care of—if they themselves don't share in paying the costs of the ordinary things that happen to everybody. They understand the reason for necessary deductions or a degree of co-insurance on bigger costs that are subject to abuse, but they want no doubt about adequate coverage for the dreaded catastrophe.

Your people are ready for the first step that must be taken to improve your indemnity plans and make them work. Apply sound insurance principles to an insurance problem. Start with insuring for the major illness—the catastrophe—instead of the first sneeze. Use deductions and co-insurance to prevent wasteful overutilization and abuse. Give your people the real protection they need and want. Explain to them what you have done and why you have done it. Some will grumble, as is still the right of all of us, but the majority will understand, accept and wonder why you haven't done it before. You're wasting *their* money if you don't. There'll be more in the paycheck if you reduce the health plan premium through the application of proved insurance methods.

Dr. Dichter also found that people are angry when they, or their fellow workers or neighbors, have major surgery or other expensive illness and the insurance payment doesn't begin to cover the doctor bills. You'll say we didn't need a psychologist to tell us that. But, to us, the interesting point is that they are angry only sometimes with the doctor, but most often with the insurance company. They want their doctors well compensated, and, with their usual reasonableness, they know medicine must be a well-compensated profession or good men and women just won't pay the enormous expense of a medical education and won't go through the years of incomeless study and toil to become doctors. They also know a doctor has overhead—that only a portion of the fee is take-home pay.

This is a problem you have very reasonably thrown right back in the laps of the doctors, where it belongs. And, as you know, they haven't solved

it yet. "What is a given medical or surgical procedure worth, so we can insure against it?" you ask.

Let's look at a few of the imponderables with which they are struggling. How much should a doctor expect to make, per hour or per day? What should be his standard of living, if he is successful? As good as the successful businessman, industrialist, minister, contractor, plumber, movie actor, carpenter, or banker? Is the same procedure worth the same amount whether it is done by the professor or the beginner? Should the doctor in the high rent area of San Francisco charge the same fee as the doctor whose office is in his home in Angel's Camp?

BARRIERS TO UNIFORM FEES

And there are other barriers to the establishment of uniform fees—some patients demand lots more service than others. Postsurgically, for example, demanding patients or their families call the doctor back again and again, often unnecessarily. Without a fixed inclusive fee, additional charge for each unnecessary visit is an effective deterrent. With a fixed inclusive fee, the doctor becomes the chattel of the demanding patient, because he must respond to each call to see if he really is needed. Complications, or just the difference in the physical or emotional pattern of patients, make the same procedures worth one amount one time and many times that amount another.

Can the medical profession add up these and many other imponderables and arrive at the uniform fees you are asking for? They haven't done it satisfactorily yet, but many experiments and trials are going on in many California county medical societies, and many committees and consultants are now working on the problem. Certainty of adequate coverage for big medical expense is recognized by the profession as a public need, and the doctors are trying to arrive at a method of making it possible. I doubt that the fixed uniform fee schedule can or should be a part of it. The problem is to produce an insurable approximation or substitute.

In addition to this certainty of coverage for major illness, Dr. Dichter found that nearly all of your people want continuity in their relations with *a* doctor, that they want everything the term "personal physician" implies. They are astute in that they want to select, to employ their own doctor, to be able to change doctors, so that the doctor's success is determined by how well he serves their interests—not by how well he serves the interests of a third party. They want their personal physician as friend and counsellor and trusted guide in the frightening maze of modern medicine. They want no second- or third-quality care when their health and lives are at stake.

LOWER COSTS—AT A PRICE

There are short cuts to lower costs.

One short cut, the closed-panel plan, provides greater certainty of coverage up to a limit, and the premium cost, while increasing, is still less. But most of your people will not tolerate the things that go with this short cut. It may sound good to a man when he is well, but he often changes his mind when he's sick. Women, more than men, see the dangers.

Your people are concerned about what they *get* for what they pay. They realize you can't set exact specifications and tests for medical care in relation to costs like you can for automobiles or steel or cement.

The patient knows instinctively that he needs to worry about a medical care plan when he becomes a captive of it, especially when those treating him make a profit by cheapening or short-cutting his medical care. This is the inescapable incentive of the operators of closed-panel plans. Conscientious doctors have left Permanente, for example, because they said they would not risk the dangers to the patients of doing as many procedures as they were required to do in the time permitted them. This incentive to cheapen and to short-cut also results in the substitution of low-salaried interns, doctors still in training and even unlicensed doctors—substituting these for qualified physicians and surgeons—often without the patient's knowledge or consent.

Contrast this incentive, to withhold and to cheapen needed medical care, to the financial incentive of the private physician to *give* care under prepayment plans that do not control him. Surely you do not want the closed-panel incentive to be the *rule* in medical care?

The patient knows that he needs to worry about these short-cut plans because they also profit when he is dissatisfied and seeks service elsewhere, thereby saving the system the cost of providing service for which it already has been paid. Large numbers of Permanente-covered patients each day pay their own personal physicians for services to which they are entitled under their closed-panel plan. You must add this enormous cost when you compare the costs of indemnity and closed-panel plans.

Free choice, then, is of interest to your individual people for other reasons than the important one of having their own personal physician. It is often an item of enormous individual cost—the cost of the premium *plus* the cost of the medical care.

It has been said by closed-panel proponents that "free choice" is not important because your people are not able to distinguish between a good doctor and a poor one. But again, they underestimate the discernment of your members. Nearly all of the well-

qualified specialists and general practitioners among the thousands I know, are busy—are selected by the most people. Rarely do we find a poorly qualified doctor with enough patients to keep him busy. The facts do not bear out the statement that your people, exercising their judgment under "free choice," make a poorer selection of doctors than does the closed-panel director. When the closed-panel director makes mistakes in the employment of doctors—and he will admit he does make mistakes—many closed-panel patients are stuck before they find out they should make a change.

I have suggested to Mr. Kaiser that he experiment with indemnifying people who are sick and scared and want to go back to their personal physicians; that he set them free without loss of all the protection for which they have paid over the months or years. So far as I know, he has not done it. I have tried to explain how these people feel and how important it is not only to their peace of mind but to their recovery, to have just the doctor they want.

There is the situation—one of many examples—where a Permanente doctor, being human, makes a mistake, or misses a diagnosis. When this happens, the Permanente-covered family often will call in their former personal physician. If he makes the diagnosis, or discovers the error, confidence in the Permanente doctors is gone—and so is the family insurance, unless they take the patient back to Permanente. Few do.

Blue Cross, and the insurance companies, write indemnity—and stay in business. Why can't Mr. Kaiser indemnify those frightened sick people who want to leave his doctors for the familiar, comforting assurance of the doctor they know? Are there too many of them? How many patients would he lose if he gave them their freedom? How much more premium would he have to charge if patients who felt they had to leave his doctors for their own got back some of the money for unused benefits for which they had paid? These people, who, leaving Permanente when they are sick, have lost their insurance protection, can tell you what freedom is worth. We call it "free choice of physician." And we know, as you do, that your people will pay more for the free choice plan than the short-cut plan. Free choice is inefficient and expensive as compared to plans that apply industrial production methods and concepts to the care of the sick. But so is democracy inefficient, and expensive.

So much for short-cuts.

We can't solve these problems by yelling that everyone else is doing it wrong and at the same time doing nothing ourselves.

But a great deal is being done. A number of medical societies have been experimenting with a California Medical Association-developed "Usual Fee Plan" to get at the problems resulting from variations in doctors' fees. Some are ready to go. Under the Usual Fee Plan the county medical society conducts a statistical study of fees actually being charged. These studies will make available average, median and modal figures. You will have the yardstick you've needed. The insuror will know where his indemnity for each procedure should be, dependent upon the percentage of the total cost he wants to underwrite. The purchaser of the plan can evaluate indemnities in terms of what doctors are charging. And when a person covered by the plan goes to his doctor, he can ask, in advance of treatment, what the doctor's fee is. If the fee is higher than the median figure and the patient is satisfied the doctor is worth more, that's his business—not yours or mine. But he is free to change.

PATIENT-PHYSICIAN DISCUSSION OF FEE

"Prior agreement"—asking the doctor his fee in advance—is something you, and we, need to educate people to do. Many of your plan administrators tell me this would solve much of your problem—and I agree with them. Only a small fraction of medical care is of so exigent a nature that there isn't time or opportunity to discuss the fee in advance.

You may tell your people that doctors *like* to be asked their fee in advance. But many doctors are reluctant to bring up the subject themselves when confronted by a patient who is sick and worried, or they forget about it in their immediate interest in the medical problem. If a doctor refused to discuss his fee with me in advance or wasn't glad to do it, I'd find another doctor.

Under this "Usual Fee Plan" some county societies have voted that the *doctor* should let the patient know in advance of treatment if his fee is higher than the median fee. They have gone further, and have said, if the doctor doesn't tell the patient in advance about a higher fee, and if the patient brings his complaint to the medical society, the society will rule that the patient should pay no more than the median figure.

Insurance people and union leaders we have contacted say this plan will result in greater certainty of coverage for the patient. And it short-cuts no one's rights or freedom. We have yet to see how it will work, but I have great confidence in it.

While we are on the subject of fees and fee schedules, everyone will be disappointed if we don't get into the hassle about the San Francisco fee schedule, which Mr. George Johns says prices you out of the health and welfare business.

I'm new on this side of the Bay, so I had to do some checking. I understand that Mr. Johns asked the San Francisco Society for a fee schedule. I

understand that he told the doctors to make it a high one, because management would pay the health and welfare bill, anyway. Mr. Johns is also quoted as saying he thought, at that time, that a well-paid doctor would give better care, and he wanted the best for his members. Things have changed since then, evidently. Not his desire to have the best for his members, but his opinion on the price. Now, with the wage-freeze off, the health and welfare plan is a deduction from what can be negotiated as take-home pay for the worker. The doctors are the employees now, and Mr. Johns represents patients who, collectively, are management—if I may be permitted this analogy. And Mr. Johns sounds like management: "You are pricing us out of business!" The San Francisco doctors respond that their fees have gone up only 48 per cent, as against *other* labor gains or 165 per cent. The price of services and goods, they say, is up 90.8 per cent. And they have other good arguments, to which Mr. Johns makes his usual able replies.

This is what is bound to happen when you ask a county medical society for a fee schedule, particularly in an important medical teaching center such as San Francisco, where in addition to a lot of good doctors, you have some super-doctors and some very famous ones. What do you expect the fee schedule to be? That of a beginning doctor in a low-rent district, or the fees of the famous professor? You'll get closer to the latter, of course. How could the doctor on the fee committee face the famous doctor, or the professor, if the committee gave you a schedule that cut too much off the fees these specialists usually charge?

The fact is, as their President, Dr. Samuel Sherman, says, "No one is satisfied with it." Which, I read in the papers, includes you.

I don't want to dismiss the San Francisco schedule lightly, because it represents a lot of work and establishes new concepts of relative values. It isn't low, but Mr. Johns didn't ask for a low schedule. He asked for a high one. He got it. At no time did the San Francisco Society say, "These are minimum fees in San Francisco." Your own health plan administrators here in the room know the fees now being charged in San Francisco are not the fees listed in the controversial fee schedule. Each doctor sets his own fees, which is his right. But he has to keep them low enough to keep patients coming. And he's still doing just that.

No one has been hurt. The schedule didn't really raise the fees. So, in good nature and forgiveness, let's start all over again, Mr. Johns, and see if we can't solve the certainty of coverage problem a better way. I don't know what the San Francisco Society will do; I don't know what you will do. But we *should* now get to work on other than paper problems.

Controls, for example.

You have posed a lot of questions about controls—control of abuses, control of unnecessary procedures, control of costs, control of quality of care—under the indemnity plans.

So, let's talk about controls.

HOW MUCH CONTROL?

Every good hospital staff has its Scotland Yard—the records committee, the pathologist, the surgical committee, the medical committee, and other committees that protect against unnecessary procedures, insure that no doctor does anything he has not proved himself qualified to do. Day after day anonymous top doctors quietly and efficiently do this work, without recognition or compensation, to improve and protect the quality and the quantity of medical care. Not just for you and the health plans, but for all sick people. When quality breaks down, our malpractice programs voluntarily pay damages to patients of doctors who, like all human beings, make occasional mistakes. And this is at the expense of the doctors of the community. They have many incentives to control quality. I know of no group or class of people anywhere who work as hard to maintain and improve quality. Breaks in quality in this work are tragic—and we seldom see them. I know. I've handled malpractice. Quality? You have a system for medical care that has produced a degree of uniform quality beyond the highest hopes of ten, five or even two years ago. Because the profession still has the incentives necessary to produce quality. Perfection? Nowhere is there perfection. There is only progress, a bit at a time.

Control, as you know, can be good. Or it can be very bad. What *kind* of control do you want?

For example: If you negotiate a welfare plan for comprehensive *food* coverage, a few of your members and a few grocers will abuse it enough to wreck your plan.

Will you then call in the grocers' association and say, "You've got to control this thing, or else!"

If the grocers' association cannot do it, will you then set up your own plan, or contract with the shiny big grocery "foundation," for food for a year for all your members—leaving it up to the director of the "foundation" to decide when, where, how much, what kind and what grade of food each member gets for each meal, paid in advance, without recourse? *Oh, brave new world!*

Or will you, in your wisdom, let each member decide for himself what he likes to eat, when he wants to eat it and how much, and let his wife decide where she is going to buy it—but let him

pay enough of the cost so that there will be little abuse, because there is self-*control?*

I can assure you that, if a patient says her back still hurts, the doctor will keep her in the hospital an extra day. But don't call that a *doctor*-abuse. It is, in the last analysis, your abuse, if it is one at all, if your plan doesn't give the patient an *interest* in getting out of the hospital. *You* can come to the hospital and try to put her out, if she and her husband and your members will stand for it, but don't try to make her personal physician the policeman for your comprehensive plan. The doctor is on the patient's side, if there is any doubt, in any difficulty with you or anyone else. And I'm going to do my best to help him stay there, and to prevent and destroy third-party influence or interference.

The patient's back may really hurt. Only she knows. Incentive, but not her doctor, will get her out of the hospital a day earlier if her back doesn't really hurt.

I believe I have given you my opinions on your questions as to the feasibility of comprehensive coverage. You can't have it without more cost than you can stand or more controls than your people will stomach.

California medicine recognizes its full responsibility for solving its part of the problem of getting greater certainty of coverage for the patient, for doing a good job of adjusting real doctor-abuses—if you will begin to bring the cases to them—for continuing its work to improve quality, for helping in every appropriate way to hold down costs. I have been retained to help doctors to organize to achieve these things, and more, to which they had already committed themselves. I am not known to them or to you as an apologist. They would not have selected me for this work if they did not want positive action in the public interest, if they were not anxious to translate the results of their painstaking studies and their conferences with you and others into better things for the patient.

I cannot, of course, tell you publicly all of their plans now—but you can look for action, and complete, honest cooperation. They'll be flexible and will compromise, but not with quality or the long-range public interest, as they see it. They'll work for solid improvement, a step at a time. But no short-cuts with sick people. And no panaceas. You know there aren't any.

THE PHYSICIAN'S *Bookshelf*

PERIPHERAL NERVE INJURIES—Principles of Diagnosis—2nd Edition. Webb Haymaker, M.D., Chief, Neuropathology Section, Armed Forces Institute of Pathology, and Barnes Woodhall, M.D., Professor of Neurosurgery, Duke University School of Medicine. W. B. Saunders Company, Philadelphia, 1953. 333 pages, 272 illustrations, $7.00.

The study of peripheral nerve injuries tends to flag between wars and yet the salvage and rehabilitation of such injuries is a civilian as well as a military challenge. It is gratifying to see the second edition of a book, first published in 1945, which deals so expertly and lucidly with the evaluation of nerve injuries. This work, the combined efforts of a neurological surgeon and a neuropathologist, is divided into four major sections. Section one describes the pattern of nerve organization and innervation of the parietes and adopts without prejudice a practical pattern of skin innervation based upon a discussion of the various methods of examining segmental nerve supply. The familiar and useful charts are easily read and utilizable. Section two covers the methods of examination of the peripheral nervous system. The emphasis is placed upon the accurate physical examination. Clear text and practical photographs and drawings aid in describing the methods of muscle testing. In section three the clinical manifestations of injuries are presented. A classification of five degrees of injury is based upon the pathology of the lesion. The reviewer regrets, in the interests of uniformity, that the authors were unable to adopt the clinical classification of Seddon; however, their five classes differ only in degree from the three groups of Seddon. This section covers the pathophysiology of sensory loss and its return, painful states, autonomic dysfunction and a discussion of mechanisms of nerve injury. In section four, the work-horse of the book, the authors discuss serially the findings in cases of injury of each particular peripheral nerve or plexes. Once again the excellent illustrations enlighten a pertinent, succinct text.

To those who possess the first edition this volume adds a more complete discussion in the text, particularly with respect to the clinico and morbid pathologic changes of injuries. The bibliography has been expanded and new, clear illustrations added.

The book is well presented, pleasing to use and incorporates but few errors in printing or text. With this book the diagnosis of the injury can be mastered. It is hoped that such an excellent work would be followed in the not too distant future with a sister volume on the treatment of the injury, for this book makes no attempt to discuss the surgical management of the injuries. This is a book of evaluation of the lesion from the standpoint of location and degree. It is the best book in the English language on this phase of nerve injuries. It may well be recommended to libraries, students, practitioners and especially to all interested in disease of the nervous system, as a scholarly and practical volume.

MAY'S MANUAL OF THE DISEASES OF THE EYE—For Students and General Practitioners—21st Edition— Revised and edited by Charles A. Perera, M.D., Associate Clinical Professor of the College of Physicians and Surgeons, Columbia University, New York, Williams and Wilkins Company, Baltimore, 1953. 512 pages, 379 illustrations, 32 plates and 93 colored figures, $6.00.

"May's Diseases of the Eye" has been the best known of the manuals of the diseases of the eye for students and general practitioners almost since its first edition in 1900. It has been translated into nine foreign languages, including Chinese, Japanese and Urdu. Consequently, the book is so well known that there is little need of outlining its contents. As stated in the title, the book is intended for the student and general practitioner, and not the ophthalmologist. In taking over the editing of the new editions since Dr. May's death, Dr. Perera has succeeded rather well in keeping the book within the original purpose of the author, and also has retained the original general arrangements.

In the twenty-first edition, Dr. Perera has revised the text and brought it up-to-date without adding to the size of the book. This has been done by deleting obsolete and inserting in its place new material. Because of the widespread use of the antibiotics by the general practitioner, it would seem that more space could have been devoted to the discussion of the methods of use, indications and the dangers involved. The indications for cortisone and ACTH could also have received a little more attention.

The addition of the new color plates has further enhanced the book. Some of the original color plates, such as plate VII, are no longer as clear cut as they were in earlier editions and could be replaced.

The format retains the original arrangement and size.

The book continues to hold its place as one of the best textbooks on ophthalmology for the student and general practitioner.

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DISEASES OF WOMEN—Ninth Edition. By ten teachers, under the direction of Frederick W. Roques, M.D., M. Chir., F.R.C.S., F.R.C.O.G., edited by Frederick W. Roques, John Beattie, and Joseph Wrigley. Edward Arnold & Co., London; distributed by Williams and Wilkins Co., Baltimore, 1953. 480 pages, $6.50.

This represents the Ninth Edition of the well-known teaching text which last appeared in 1949 under the direction of Clifford White. As noted in the preface this book is written "primarily for young practitioners and medical students." It satisfies these requirements.

As would be expected, the text has a distinct British flavor, including a chapter on acute corporeal endometritis and many of such items as Aveling's repositor for use in chronic inversion of the uterus. In addition there is a short chapter on operations which is elementary in nature. The chapter on sex hormones has been entirely rewritten and is well done, as is the chapter on abnormal menstruation.

Of interest are the 14 pages devoted to neurasthenia and neurosis in relation to pelvic disorders.

This book is intended as a companion volume to "Midwifery by Ten Teachers" and as a consequence there are numerous cross-references to the latter book. This makes it somewhat mandatory to have both volumes at one's disposal when making a serious study of the context. However, the present book may be recommended for the purpose intended, that is, the use of medical students and young practitioners.

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THE BRITISH CONTRIBUTION TO MEDICINE. Dr. Jaime Jaramillo-Arango, Former Rector of the National Faculty of Medicine of Bogota, former Colombian Ambassador in London. E. & S. Livingstone Ltd., Edinburgh and London, 1953. Distributed by Williams & Wilkins, Baltimore, 1954. 220 pages.

Dr. Jaime Jaramillo-Arango has long been a student of medical history, and in addition to being author of this excellent book on Britain's contribution to medicine, he has written a scholarly treatise on the history of quinine in which he establishes that the role of the Countess of Chinchon must be relegated to the limbo of mythology. He has had a distinguished career as professor of surgery and later as rector of the National Faculty of Medicine of Bogota, Colombia. This book has been written from notes collected while he was Colombian Ambassador in London.

Printed on excellent paper, this book of 220 pages is most interestingly written, is well documented and is illustrated with 44 photographs of British medical scientists from William Harvey, Percivall Pott and John Hunter to Charles H. Best, Sir Frederick Banting, Sir Robert Robinson and Alexander Haddow. The opening chapter gives a brief general history which loses no charm or value because of brevity. Discoveries and ideas are linked to personalities in a striking manner, often with brief history-making quotations from their writings. The other six chapters tell dramatically of the conquest of typhoid, malaria and nutritional diseases, the discovery and development of penicillin and other antibiotics with a "Chronology of the Pillars of this New Science," and of the struggle against cancer to which the British have made such notable contributions. This book should be in the library of everyone having an interest in medical history.

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HYPERTENSIVE DISORDERS OF PREGNANCY. Ernest W. Page, M.D., Associate Professor of Obstetrics and Gynecology, University of California School of Medicine. Charles C. Thomas, publisher, Springfield, Ill., 1953. 120 pages, $3.75.

This monograph is one of the American Lecture Series which has been brought forth by Charles C. Thomas Company. Dr. Page has produced an excellent summary of the prevailing knowledge in the field of pregnancy toxemias and related disorders. The work is divided into three parts: Clinical Aspects; Physiological and Biochemical Changes in Normal Pregnancy and in Toxemia; and Etiology of Toxemia.

The book contains an excellent bibliography numbering 132 references. It can be recommended primarily to the obstetric specialist and will be of value to those who include substantial numbers of obstetrical patients in their work. However, much of the data is highly technical and of research nature; certain of the material given in relation to therapy is more of a compendium and one seeking specific recommendations on treatment will refer to supplementary works. This book is highly recommended to investigators with special interest in hypertensive disorders.

MEDICAL JURISPRUDENCE—3rd Edition—I. Gordon, M.B., Ch.B. (Cape Town); R. Turner, M.B., Ch.B., D.P.H. (Cape Town); and T. W. Price, Ph.D., M.A., LL.B. (Cantab.), B.A., LL.B. (South Africa), all from the University of Cape Town, E. & S. Livingstone, Ltd., London, distributed through Williams and Wilkins, Baltimore, 1953. 944 pages, $13.50.

Over one-half the volume is devoted to the South African law and its relation to the practicing physician in that area. For the purposes of one interested in a comparative study of the South African and American laws and regulations, the book would serve well.

The remainder of the volume deals with forensic medicine and pathology, written in a concise and well-organized manner. The more recent advances and late literature are included in the discussions. Perhaps, more so than elsewhere, the relations of physiologic and biochemical changes to postmortem findings are given. Detailed chapters on necropsy technique, anesthetic deaths, deaths from acute neurogenic cardiovascular collapse, and also on postmortem tissue changes due to the various types of anoxia, etc., are included. A large section, "regional injuries of medico-legal importance," is well organized, adequately illustrated, and up-to-date.

Despite the fact that much of the volume is not pertinent to the laws under which the American physician practices, that portion of the book dealing with forensic medicine and pathology is such as to justify the consideration of the use of the book for reading and as a ready reference source.

* * *

SPATIAL VECTORCARDIOGRAPHY—George E. Burch, M.D., F.A.C.P., Henderson Professor of Medicine, Tulane University School of Medicine; J. A. Abildskov, M.D., Instructor in Medicine, Tulane University School of Medicine; and James A. Cronvich, M.S., Professor of Electrical Engineering, Tulane University, Lea & Febiger, Philadelphia, 1953. 173 pages, 121 illustrations, $5.00.

This small volume satisfactorily presents in simplified and abbreviated fashion the salient features of spatial vectorcardiography, a branch of cardiology which presently is attracting the investigative attenion of a few electrocardiographers. From a review of their own findings and those of other workers in the field, the authors conclude that the subject is still in the experimental stage and that practical clinical applicaions have not yet been demonstrated.

Material in the book has been modified from that presented among the scientific exhibits at a meeting of the American Medical Association. This approach to writing favors simplification but seems to have resulted in something of an outline style, an annoying use of italics and occasional repetition (Figures 29 and 78 are identical, as are Figures 30 and 73); a few of the electrocardiograms from patients whose vectorcardiograms are shown are reproduced in such small area as to be nearly illegible to the naked eye. For all this, the volume is a satisfactory introduction to a subject which may yet become useful to physicians.

* * *

WATER, ELECTROLYTE AND ACID-BASE BALANCE—Normal and Pathologic Physiology as a Basis for Therapy. Harry F. Weisberg, M.D., Assistant Professor of Clinical Pathology and of Clinical Medicine, The Chicago Medical School. The Williams and Wilkins Company, Baltimore, 1953. 245 pages, $5.00.

Students and physicians alike will find this book helpful as an aid to orientation in this rapidly developing field. Although dealing in fundamentals which the busy physician may find difficult to assimilate, these fundamentals are essential to an understanding of problems involving electrolyte disturbances. The physician who will take the time

to assimilate all that this small, simply written volume encompasses will undoubtedly profit as will his patients. Particularly valuable is the list of nearly 400 well-selected references pertinent to the field and the tables which summarize important factual information of value to the clinician and scientist. While the electrolyte specialist may take exception to certain concepts presented, he will at the same time recognize the over-all contribution of this volume to the field.

* * *

AN APPROACH TO GENERAL PRACTICE—R. J. F. H. Pinsent, M.A., M.D. (Cantab.), E. & S. Livingstone, Ltd., distributed by Williams and Wilkins Company, Baltimore, 1953. 166 pages, $3.50.

This is an excellent book. It is well planned and makes good easy reading. It is written by a British doctor of many years' experience in the field of general practice, and is apparently intended as a guide for the young man entering general practice in Great Britain.

The advice given the new doctor concerning his relations to (a) the men already in the field, (b) his new patients, (c) his consultants, and (d) the hospital, is excellent.

The chapters on The Doctor's Office and The Doctor's Documents are worth the price of the book.

The closing chapters deal with the problems peculiar to the practice of medicine under the panel system of Great Britain.

The book is of academic interest to every G.P., but it does not in any way approach the problems of the G.P. in the United States.

* * *

ATLAS OF REGIONAL DERMATOLOGY. Ernest K. Stratton, P.D., M.D., Research Associate, the George Williams Hooper Foundation for Medical Research, University of California, and Harry L. Arnold, Jr., M.D., Maurice J. Costell, M.D., Lewis A. Koplik, M.D., and Paul Fasal, M.D. Charles C. Thomas, publisher, Springfield, 1953. 274 pages, $15.00.

The purpose of this atlas, as stated by the author, is primarily that of aiding the student in dermatology. The emphasis is on visual instruction and on the regional distribution of the various dermatoses. Both of these approaches are of great value to the beginner and are well covered in this volume.

The discussions of etiology, symptomatology and differential diagnosis are brief but excellent. No attempt is made to cover therapy *in extenso;* instead, a brief outline is given and the student is referred to standard texts.

Your reviewer has seen no better color photographs in any other atlas. Their great superiority over the black and white photographs (which are about on a par with those in other atlases) points out the desirability of dermatological atlases being all in color. For it is simply impossible for the student, or expert for that matter, to diagnose many dermatoses from black and white photos alone.

* * *

HUMAN EMBRYOLOGY—2nd Edition. A textbook for medical students and physicians. Bradley M. Patten, Professor of Anatomy in the University of Michigan Medical School. The Blakiston Company, Inc., New York, 1953. 798 pages, 453 illustrations and 2 plates. $12.00.

Since its first appearance in 1946, Patten's textbook has become a standard in the teaching of human embryology to students of both biology and medicine, in addition to serving as a reference work of considerable value to physicians.

The scope and objectives of the first edition have been preserved, the most significant changes being an extension of the sections on early implantation to include the most recent findings of Hertig and Rock, further elaboration on the establishment of the germ layers, and the development of the heart and great vessels, emphasizing congenital anomalies which are proving ever more amenable to surgical correction.

The excellent bibliography has been brought up to date, many more illustrations have been included, and certain errors and omissions in the first edition have been remedied.

While Human Embryology, 2nd ed., remains primarily a text, it should as well be valuable to the phyisican as a reference book.

* * *

PATHOLOGY—2nd Edition—Edited by W. A. D. Anderson, M.A., M.D., F.A.C.P., Professor of Pathology and Chairman of the Department of Pathology, University of Miami School of Medicine. The C. V. Mosby Company, St. Louis, 1953. 1393 pages, 1241 illustrations, 10 color plates, $16.00.

The second edition of this authoritative textbook of pathology maintains the advantage, established in the previous edition, of being the cooperative product of many experts in special fields of pathology. This is particularly desirable in this broad subject which, in covering all kinds of disease, crosses every other branch of medicine.

The book presents a good balance between the discussion of principles in pathology and the presentation of structural and functional changes in disease. It is well arranged, nicely illustrated, and sufficiently detailed to be of use not only to undergraduate students of medicine, but also to graduate physicians in every field who are interested in pathogenesis or in the tissue changes of disease. Classified references at the end of each chapter provide a practical beginning for further reading in nearly every phase of pathology.

* * *

DISEASES OF THE LIVER, GALLBLADDER AND BILE DUCTS—Volumes 1 and 2—3rd Edition—S. S. Lichtman, M.D., Assistant Professor of Clinical Medicine, Cornell University Medical College, Lea & Febiger, Philadelphia, 1953. 1315 pages of text, 42 pages of index, 220 illustrations and 3 color plates, $22.00.

For many years this book has been a good, detailed reference on the liver and its diseases. The third edition finds it expanded to 1315 pages and divided into two volumes.

The rapid advance of knowledge has made necessary rather extensive revision in practically every chapter. This has been well handled, and the new edition offers a comprehensive coverage of current medical knowledge of the liver and biliary tract.

It can be recommended heartily to anyone interested in the field of liver disease.

* * *

NEUROLOGICAL PROBLEMS IN THE WORLD IN 1953—59 Articles by 75 Authors—In Honor of Robert Wartenberg, San Francisco—Edited by Webb Haymaker, Armed Forces Institute of Pathology, Washington, D. C., Journal of Nervous and Mental Disease, New York, December 1952.

This book is a reprint of the number of the *Journal of Nervous and Mental Disease* honoring Dr. Wartenberg on the 65th anniversary of his birth. The articles, many in a foreign tongue, are varied both in quality and content, ranging from biographical data regarding Dr. Wartenberg to a consideration of the historical significance of fumigation of mail from pestilential areas. Much of the material makes interesting reading for the neurologist, and the whole thing is a nice gesture of appreciation to one of the most colorful neurologists to have practiced in California.

ATLAS OF PELVIC OPERATIONS. Langdon Parsons, M.D., Professor of Gynecology, Boston University School of Medicine; and Howard Ulfelder, M.D., Assistant Clinical Professor of Gynecology, Harvard Medical School. Illustrated by Mildred B. Godding, A.B., M.A. W. B. Saunders Company, Philadelphia, 1953. 231 pages, $18.00.

This is a book of handsome appearance that captures one's interest from the outset. This atlas of pelvic operations differs in many ways from others because of its evident simplicity in depicting operative procedure by means of line drawings, which have the advantage over colored illustrations by impressing themselves more lastingly upon the mind of the average student seeking to create a reliable graphic memory of technical sequence.

The authors are attached to several well known Boston hospitals, where surgical gynecology is well standardized, and what they are depicting are standard procedures as practiced in these hospitals, admitting frankly however, that there are other techniques practiced with equal success elsewhere. Long practice and much experience allows the authors to feel that what they have depicted is good pelvic surgery and your reviewer agrees with them heartily.

A careful page by page perusal of this attractive atlas leaves one with the impression that the authors' intent in creating this atlas was to reduce technical details to their demonstrable minimum, and not to impress the tyro-gynecologist with an oversimple approach to pelvic surgery. For any student of gynecologic operations the many line drawings, with brief but adequate descriptions in juxtaposition, will serve as an excellent guide to the acquisition of a good graphic memory, albeit sound training and long experience still are the only reliable avenues leading to surgical perfection.

Aside from demonstrating the successive steps in pelvic operations, the atlas is full of helpful hints on how to avoid trouble. Indications for or against a particular surgical approach have been intentionally omitted because the authors are aware that there always is room for another opinion.

Besides the descriptions of many gynecologic operations covering everything from the simplest plastic corrections to the most radical operations for malignant disease, the atlas goes extensively into technical details of intestinal and ureteral operations to cover emergencies not too infrequently encountered in the course of technically difficult or radical operations, including techniques of ureteral transplantations and vein ligations for thrombosis. In summa, the atlas adequately covers all operations a good gynecologic surgeon should be equipped with.

The volume is dedicated to Dr. Joe Meigs, under whose tutelage the authors gained their experience. Miss Mildred Godding, Surgical Illustrator for Harvard Medical School contributed much to the attractiveness of the atlas by adhering strictly to technical simplicity, however, without sacrificing the expressive artistry of line drawings. W. B. Saunders Company, as always, did such a good job in turning out a fine piece of printing and binding that, on seeing the atlas, one of my younger associates remarked that it was worthy of the best of the medical carriage trade, which about expresses the general attractiveness of the tome.

* * *

REVIEW OF PHYSIOLOGICAL CHEMISTRY—4th Edition—Harold A. Harper, Ph.D., Professor of Biochemistry, University of San Francisco, Lange Medical Publications, University Medical Publishers, P.O. Box 1215, Los Altos, California, 1953. 328 pages, $4.00.

Well-received by California medicine as the third edition in 1951, this unpretentious volume has now been brought up to date. Its clinical orientation should assure it a good reception among medical students, as well as physicians young in years or in mind.

DIAGNOSIS OF ACUTE ABDOMINAL PAIN. William Requarth, M.D., Clinical Assistant Professor of Surgery, University of Illinois College of Medicine. The Year Book Publishers, Inc., 1953. 243 pages, $5.00.

There is scarcely a day in the active work of the general practitioner or of the general surgeon when he is not called upon to diagnose the cause of acute abdominal pain and to determine whether or not operation is indicated to remove that cause.

In this well-written book of 243 pages the author has presented an old story in a new and attractive form and has compressed into short space a number of practical points and a series of helpful illustrations.

Through the entire nine chapters there runs the basic philosophic concept of emphasis upon fundamentals to the end that the need for surgery should be determined as soon as it is humanly possible and that surgery should be performed at the earliest possible time in order that the patient may benefit most.

Consistent with this, the author first discusses in Chapter 1, Examination of the Abdomen, in which inspection, palpation, percussion, and auscultation, bimanual examination and laboratory aids, are given their appropriate place in diagnosis.

Chapter II, Differential Diagnosis from Standpoint of Location and Type of Pain, is a new approach to the subject. Appropriate emphasis is given to the differential diagnosis of lower abdominal pain, to that of upper abdominal pain, and stress is placed upon the need for good clinical judgment.

Because the author believes that acute intestinal obstruction is one of the most important causes of acute abdominal pain, he devotes Chapter III to a thoroughgoing discussion of it. There is outlined in some detail the differential diagnosis of mechanical obstruction from ileus, the differentiation between small and large bowel obstruction, a discussion of strangulation, and the diagnosis of the specific cause of obstruction. While operative techniques are not emphasized, reference on occasion is made to the indicated procedure.

Another departure in the presentation of this subject is represented in Chapter IV entitled Diseases for Which Immediate Operation Is Imperative, and Chapter V, Diseases for Which Operation Can Be Delayed.

Chapter VI, Diseases for Which Operation Is Contraindicated or Harmful, stresses the abdominal manifestations of the acute respiratory infections, abdominal pain of acute enteritis, mesenteric lymphadenitis, the abdominal pain experienced in rheumatic fever, and the rarer conditions evidenced by spontaneous hemorrhage into the rectus abdominis muscle, abdominal pain in malaria, abdominal pain in sickle cell anemia. Also, acute pancreatitis is given considerable space in differential diagnosis as are the urologic causes of abdominal pain. Coronary occlusion, dissecting aneurysm of the aorta, and the abdominal pain of herpes zoster, all receive appropriate attention, as does the abdominal pain occurring with spontaneous pneumothorax and that of the gastric crisis of tabes dorsalis. This is a particularly interesting chapter and outlines the pitfalls of which one must always be aware.

Chapter VII, Traumatic Wounds of the Abdomen, covers this subject in a workmanlike manner.

Chapter IX, Differential Diagnosis of Acute Gastroesophageal Hemorrhage, is timely and factual.

In summary, this book is at once a text and an excellent manual of reference for any practitioner who is responsible for the care of a patient presenting the symptom of acute abdominal pain.

Fear Causes Inability of Some to Participate In Physical Exertion

Fear, rather than a physical affliction, causes some people to be unable to participate in physical exertion, according to an article in a recent issue of the *Journal of the American Medical Association.*

Known as effort syndrome, this condition is a form of anxiety neurosis in which the effort of physical exertion is an important precipitant, it was stated by Dr. Daniel W. Badal, Cleveland. Effort syndrome is accompanied by fear, apprehension and nervousness, and is characterized by difficulty in breathing, palpitation, pain or discomfort over the heart, easy exhaustion and faintness, he said, adding:

"It is known that the condition may be acute but that in some cases it can become a chronic, disabling condition requiring the patient to modify his life in order to avoid stresses. Even when the patient does not complain primarily of intolerance to effort, his performance and work tests are not normal, and all patients have a decrease in efficiency.

"The bodily symptoms function secondarily as a defense against the feared activity. The core of anxiety itself seems to arise when the individual is placed in a situation that evokes a previous anxiety over being helpless in the face of outside forces that awaken a passive attitude."

Dr. Badal reported on a study of 111 enlisted men in the medical and psychiatric wards of military hospitals during World War II who complained about the symptoms of the effort syndrome upon effort or excitement.

Certain purely psychic symptoms were found to be present in these patients, Dr. Badal stated, including a high number of phobias and fears, depressions of a neurotic nature, and hypochondriacal and hysterical attitudes.

The study showed, Dr. Badal said, that the formation of the effort syndrome appears to occur stepwise: (1) the patient has at some time been impressed with a sense of powerlessness in the face of environmental forces and with a need to be passive before them; (2) a situation exists that mobilizes or stimulates this sense of powerlessness, and anxiety with its usual physiological components occurs; (3) a body consciousness arises on which the body reaction makes a profound impression.

Then, he stated, a displacement occurs of the patient's conscious interest and attention to the body symptom, with a resultant loss of interest and attention to the conflict situation, which thus becomes or remains unconscious, in the manner of hysteria.

"The entire situation becomes fixed in this arrangement of psychic forces, creating a chronic, self-perpetuating constellation in which the patient's belief that he has bodily weakness prevents him from participating in competitive activities," Dr. Badal

(Continued on Page 60)

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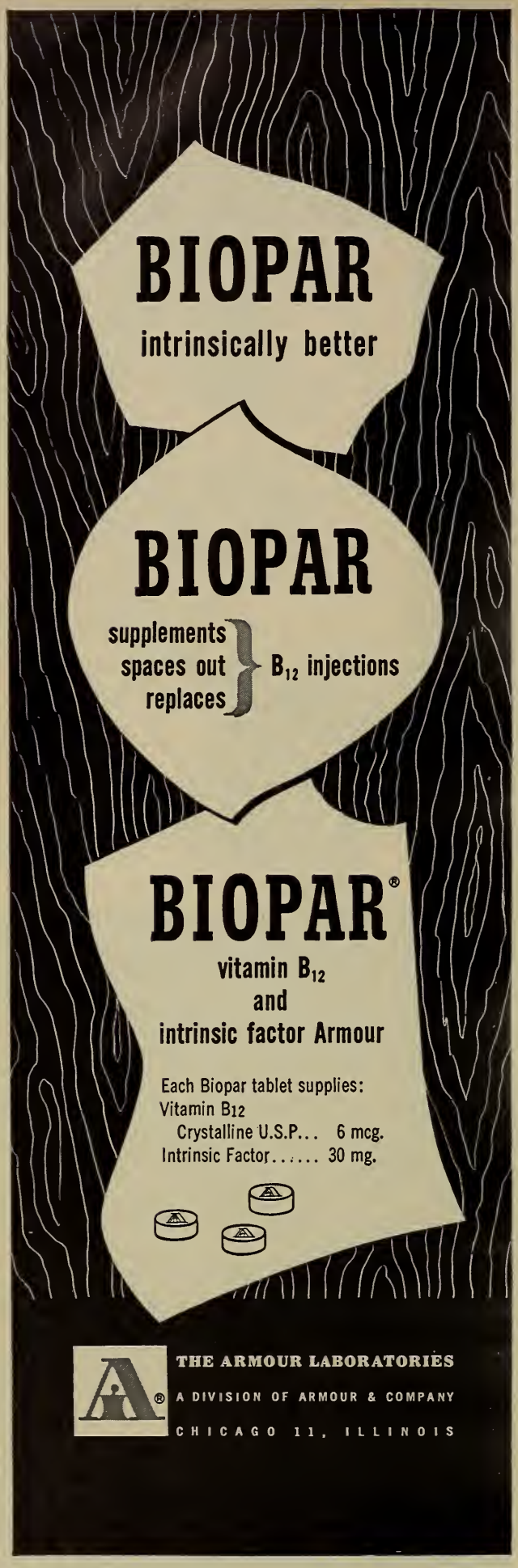

California MEDICINE

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PHYSICIANS WANTED

CALIFORNIA LICENSED PHYSICIAN-SURGEONS WANTED: MEDICAL DIRECTOR-ADMINISTRATOR, have full charge and responsibility of 185-bed hospital; appointment available July 1954; starting salary $10,000. ANESTHESIOLOGIST, preferably certified, join group of Diplomates this specialty in excellent location; salary first six months, then partnership. INTERNIST, preferably with interest in gastroenterology for 3-man department of established, reputable group in excellent location; financial arrangements open. ORTHOPEDIST, for 10-man group; one of best in San Francisco Bay Area; financial arrangements entirely open, will be discussed in direct contact. OPHTHALMOLOGIST for highly regarded group near Santa Barbara; excellent salary to start with partnership opportunity. OTOLARYNGOLOGIST for 13-man group in Northern California city; excellent opportunity for qualified man; financial arrangements open. PEDIATRICIANS, many excellent opportunities—Bay Area and throughout California. SURGEON, join two established General Practitioners with active practice; salary first year, then partnership. MANY EXCELLENT OPENINGS IN GENERAL PRACTICE—ALSO LOCUM TENENS APPOINTMENTS. For information, contact PACIFIC COAST MEDICAL BUREAU Agy., 703 Market, SAN FRANCISCO, or 510 West Sixth, LOS ANGELES.

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PHYSICIANS-SURGEONS WANTED. Write us for forms if interested in locating in Pacific Northwest, Southwest, or through the Rocky Mountain area. No registration fee; strictly confidential. CONTINENTAL MEDICAL BUREAU (Helen Buchan), 510 West Sixth Street, Los Angeles 14, California.

(Continued on Page 64)

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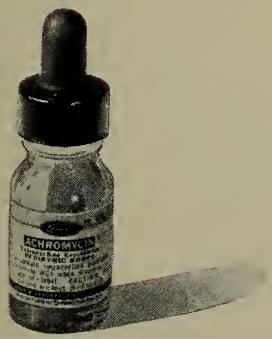

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Fear Causes Inability of Some to Participate In Physical Exertion

(Continued from Page 55)

added. "The passive life fostered by such a belief leads to more feeling of weakness and more anxiety, and the process starts all over again."

The cause of this disorder has not yet been clearly defined, according to Dr. Badal. It is not known whether this is a mental condition, or whether some chemical or other biological factor is set off by psychic influences. A high family prevalence is shown, but whether it means a hereditary etiology or a learned pattern, or a combination of the two is uncertain, he added.

Dr. Badal is a member of the staff of University Hospitals, division of psychiatry, and the school of medicine, Western Reserve University.

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*Steigmann, F., and Goldberg, E., J. Lab. & Clin. Med. *42*:955 (1953).

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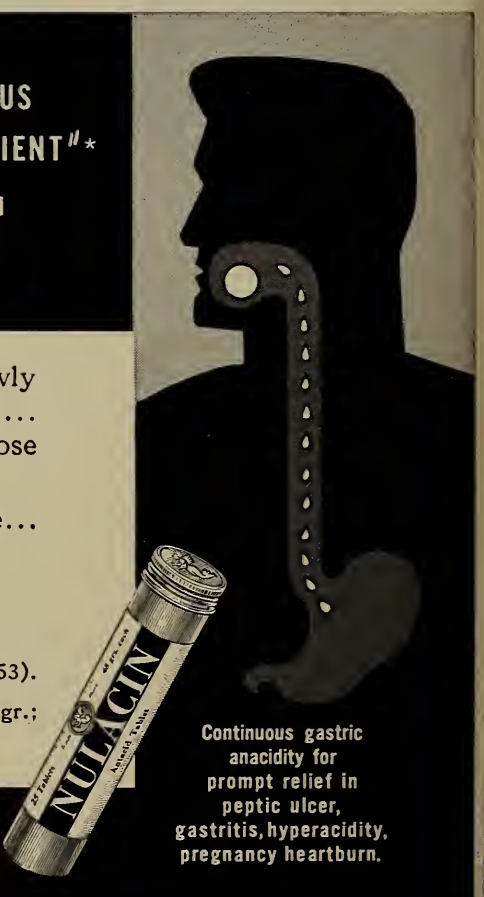

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Coconut Water May Be Source of Fluid Replacement

In remote areas or under emergency military conditions, coconut water may prove to be a source of body fluid replacement, preliminary studies have shown, according to Dr. Ben Eiseman, Denver.

Twenty-one persons have received a total of 26 intravenous infusions of coconut water without any serious reactions, Dr. Eiseman wrote in a recent issue of the *Archives of Surgery*, published by the American Medical Association.

Preliminary studies, carried out in Bangkok, Thailand, and in St. Louis, "suggest that the water from unripe coconuts is a suitable source of intravenous fluid," Dr. Eiseman stated, adding:

"Should this material prove to be satisfactory, it might be of benefit both to physicians now practicing in remote areas and under emergency military conditions where the normal sources of intravenous solutions have been interrupted."

Animal experiments with coconut water have shown no adverse effects from its use, he reported. Bacteriological and chemical studies disclosed that there is no bacterial or fungal contamination from coconut water if strict sterilization is enforced. The main ingredients of the water are potassium, chloride, phosphate, sugars, magnesium, calcium, and proteins.

The coconut water is obtained by withdrawing the fluid from the nut through a tube inserted in the eye of the nut. The fluid is then filtered to drain off any particles of coconut meat.

Dr. Eiseman stressed that the present study was too limited to make definite conclusions, but that further study is warranted.

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• O'Brien, G. F. & Schweitzer, I. L.: The Med. Clinics of North America, W. B. Saunders, 1953, p. 163.
• Gauss, H.: Am. Jrl. Dig. Dis. 10:141 (1943)

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(Continued from Page 56)

PHYSICIANS WANTED (continued)

ASSISTANT MEDICAL DIRECTOR, tuberculosis sanatorium, rural location, salary $6,000, full family maintenance, privilege of private practice in vicinity. Tuberculosis experience desirable but not essential. California license. Apply Medical Director, Ahwahnee Sanatorium, Ahwahnee, California. Appointment could be effective about July 1, if desired.

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ADMINISTRATOR, MEDICAL. Twelve years' experience Hospital Commander, Chief Professional Service, Chief Surgical Service, military hospitals. Retiring September 30, 1954. Desire position as Medical Administrator, California, private, county or state hospital. Licensed California. Fellow American College of Surgeons. Available for personal interview. Box 90,685, California Medicine.

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GENERAL PRACTITIONER, 26, married, one child, will be discharged from the Army, August 31, 1954, desires permanent association with individual or group in Southern California, California licensed. Box 90,705, California Medicine.

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OBSTETRICIAN-GYNECOLOGIST, age 32, Board Eligible, desires association with individual or group in California. Available September, 1954. Draft exempt because of Naval Service. Harold W. Garvin, M.D., 17 Timber Lane, Levittown, New York.

OBSTETRICIAN-GYNECOLOGIST, 32, Board qualified, now practicing in California, desires association with a group or another Ob-Gyn. man. Box 90,715, California Medicine.

WANTED: OPPORTUNITIES FOR CALIFORNIA LICENTIATES—Our complete registry of SPECIALISTS and GENERAL PRACTITIONERS offers you the opportunity to choose from many highly qualified and outstanding applicants. THE MEDICAL CENTER AGENCY is a personalized Medical placement service. For further information, please contact Norma Rohl, THE MEDICAL CENTER AGENCY, 26 O'Farrell Street, San Francisco, YUkon 2-3412.

OPHTHALMOLOGIST, Board Certificated, Class IV, university trained, three young children, seeks group or individual association or purchase. Box 90,690, California Medicine.

OPHTHALMOLOGIST, 33, married, university trained, board eligible, category IV, desires association with group or to purchase existing practice on percentage basis. Box 90,595, California Medicine.

OTOLARYNGOLOGIST: Age 32, licensed in California, Board eligible. Three years approved training. Knowledge office ophthalmology. Desires association with group or individual. Draft Category IV. Will appear for interview. Box 90,735, California Medicine.

MOUNT SINAI (N.Y.C.)—Trained physician with three years of residency in medicine and two years in practice desires association with established Practitioner or Internist in California. Would consider part-time industrial appointment. Details in first letter. Box 90,720, California Medicine.

PEDIATRICIAN, BOARD QUALIFIED, 30, desires opportunity in private practice, group, or association with pediatrician. California license and training. Army service completed. Box 90,640, California Medicine.

(Continued on Page 72)

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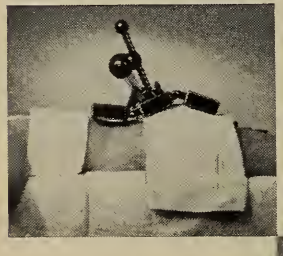

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ONE TABLET T.I.D.
AFTER MEALS

Each tablet provides 1 mg. Rauwiloid and 3 mg. Veriloid. In bottles of 100, an average month's supply.

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When severity of hypertension or failure to respond to other medications justifies ganglionic blockade, the combination of Rauwiloid and hexamethonium—in a single tablet—proves definitely superior to blocking agents alone and considerably simpler than therapy with simultaneous administration of individual agents.

Rauwiloid stabilizes—and seemingly potentiates—the effect of hexamethonium. Greatly reduced dosage of the latter suffices—as little as 50% of the usual hexamethonium dosage may prove adequate.

Lowered blood pressure is more stable—side actions to hexamethonium are greatly lessened—associated symptoms are rapidly overcome—the patient usually feels he has "a new lease on life"—dosage adjustment is simpler—and patient supervision is less burdensome.

Contraindications and cautions are only those applying to hexamethonium. • Initial dosage, ½ tablet q.i.d., not less than 4 hours apart, *before meals* and on retiring. After two weeks (for Rauwiloid effect), dosage should be increased by 1 tablet daily, not oftener than twice weekly, until tension is stabilized at desired level.

INITIALLY
½ TABLET Q.I.D. BEFORE
MEALS AND AT BEDTIME

Each scored tablet contains 1 mg. of Rauwiloid and 250 mg. of hexamethonium. Supplied in bottles of 100 tablets, an average month's supply.

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Unusual Group of Symptoms in Three Patients Described

An unusual group of symptoms, consisting of recurrent episodes of unnatural drowsiness, excessive sleep, extreme hunger, and such abnormal mental states as depression, clouded senses, partial or total amnesia for certain periods, and psychomotor retardation, were described in a recent issue of the *Journal of the American Medical Association.*

The occurrence of such symptoms in three patients was reported by Dr. Alfred Gallinek, New York. In two of the patients, the symptoms followed an acute infectious illness.

One case described by Dr. Gallinek was that of a 58-year-old woman who began experiencing the symptoms following an acute attack of diarrhea in Haiti 12 years ago. The episodes occur two or three times a year, lasting for about three weeks, he stated.

First the patient becomes excessively hungry, with a special craving for sweets. She then experiences extreme drowsiness, bodily discomfort, fatigue, weakness, and sleeps 18 to 24 hours each day. When awake during this period of the attack, the patient shows slowness of speech and thought and a reduction of all motor activity. The third phase of the attack is characterized by abnormal mental states.

The second case reported was that of a 34-year-old man who has experienced similar symptoms since he was 17 years of age. The third patient was a 16-year-old youth who began suffering from such symptoms following an attack of chickenpox and subsequent brain fever at the age of 14 years.

Drug therapy during the last year has resulted in a very remarkable improvement in the older patients, according to Dr. Gallinek. Although the episodes have continued, they occur at longer intervals and are much milder. No attempt at therapy has been made in the case of the young boy.

Dr. Gallinek is associated with the department of neurology, Columbia University College of Physicians and Surgeons, and the neurological institute of the Presbyterian Hospital of New York.

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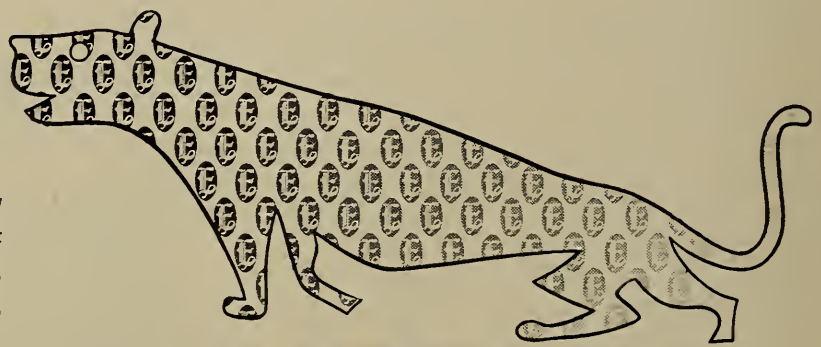

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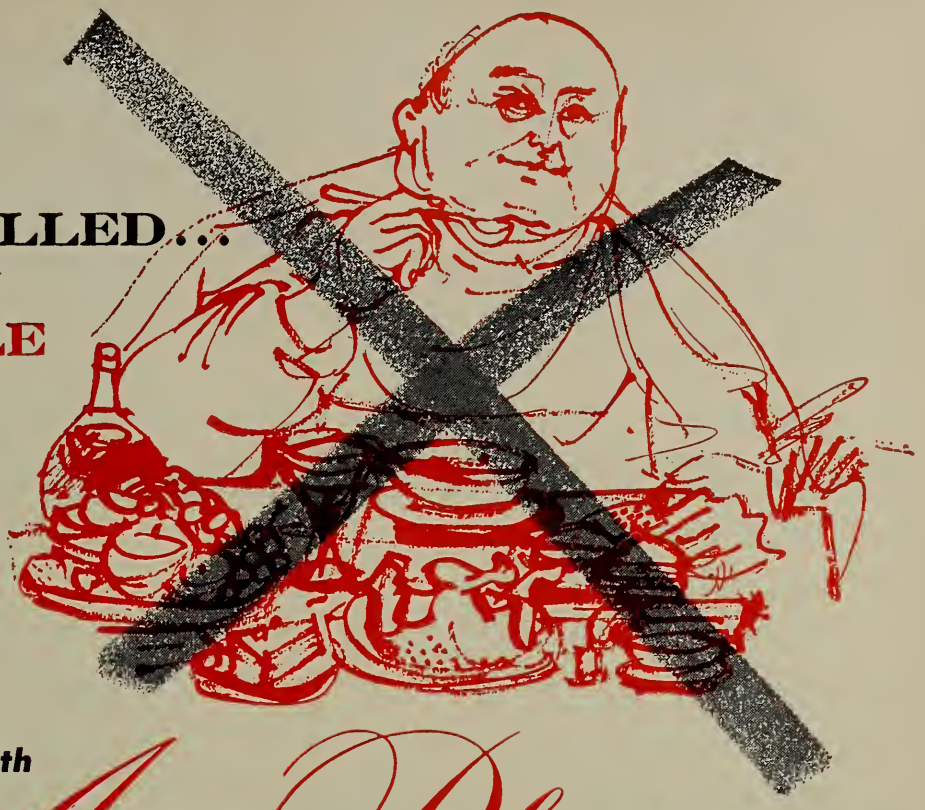

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Vitamin D	400 U.S.P. Units	Iodine	0.15 mg.
Thiamine Hydrochloride	2 mg.	Iron	3.33 mg.
Riboflavin	2 mg.	Manganese	0.33 mg.
Pyridoxine Hydrochloride	0.5 mg.	Molybdenum	0.2 mg.
Niacinamide	20 mg.	Magnesium	2 mg.
Ascorbic Acid	37.5 mg.	Phosphorus	187 mg.
Calcium Pantothenate	3 mg.	Potassium	1.7 mg.
Calcium	242 mg.	Zinc	0.4 mg.

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536 Lake Shore Drive, Chicago 11, Illinois

Describe Use of New Milk Protein Supplement

Successful use of a new protein supplement as an adjuvant to treatment of various types of diseases and abnormal health conditions, including those requiring low-sodium diets, was described in a recent issue of the *Journal of the American Medical Association.*

Called Kralex, the supplement is derived from skim milk and is taken orally in liquid form. It has been used to supply sufficient proteins to persons suffering from heart, kidney and liver diseases, in reducing diets for obesity, to combat protein deficiency due to lack or loss of appetite, and to increase the daily protein intake of the aged and very young, the article said.

Although high in protein, Kralex lacks vitamins and minerals, and is not a balanced food, the article stressed. It is very palatable, and as a liquid can be flavored with fruit flavors and served hot or cold, or it may be used as a gelatin or as a base for puddings or cream soups. Because of the low initial cost of milk protein as compared with other animal protein and the simplified methods of manufacture, Kralex should be a relatively low cost source of protein, it added.

(Continued on Page 78)

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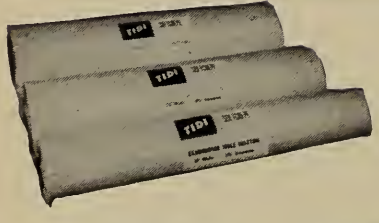

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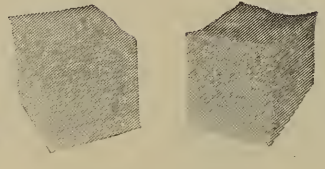

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Directions: To prepare vaginal douche add one teaspoonful of Pro-acet Concentrate to each quart of warm water and MIX WELL.

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Bottles of 100, 500 and 1000.

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A safer drug in management of hypertension

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Describe Use of New Milk Protein Supplement

(Continued from Page 76)

The therapeutic need of high protein dietary intake for the treatment of disease, for adequate wound healing and convalescence, and for dietary problems of the very young or aged has been recognized by both surgeons and clinicians for many years, the article pointed out. Although successful results are obtained by present methods of intravenous administration of protein supplements, oral administration is believed to be a better mode of therapy, the article added.

The article was prepared by Drs. Gilbert H. Marquardt, George M. Cummins, Jr., and Charles I. Fisher, Chicago, and Lloyd K. Riggs, Ph.D., New York. The Chicago physicians are associated with the departments of medicine, Northwestern University Medical School and the Wesley Memorial Hospital. Dr. Riggs is associated with the National Dairy Research Laboratories, Oakdale, Long Island, N. Y.

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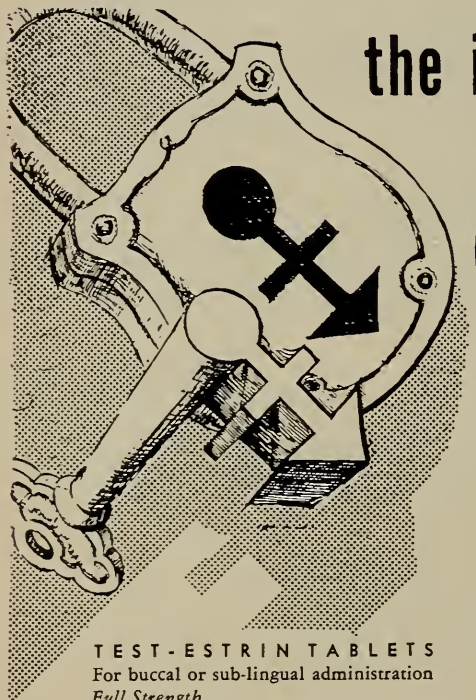

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Veterans Administration Report for Fiscal 1953

The Veterans Administration report for fiscal 1953 shows that the average daily patient load of veterans in VA and non-VA hospitals remained about the same as the preceding years: 104,482. Admissions to hospitals came to 468,349, about 27,000 fewer than in fiscal 1952. About 23,000 eligible veterans were awaiting admission, 1,000 more than the year before. (Of these, only three were service-connected cases; they had been offered admission, but preferred to wait for hospitals of their choice.) Residency trainees at 69 VA hospitals and one regional office totalled 2,014. Most popular residency programs were in internal medicine (599), general surgery (533), and psychiatry (291).

—A.M.A. Washington Letter

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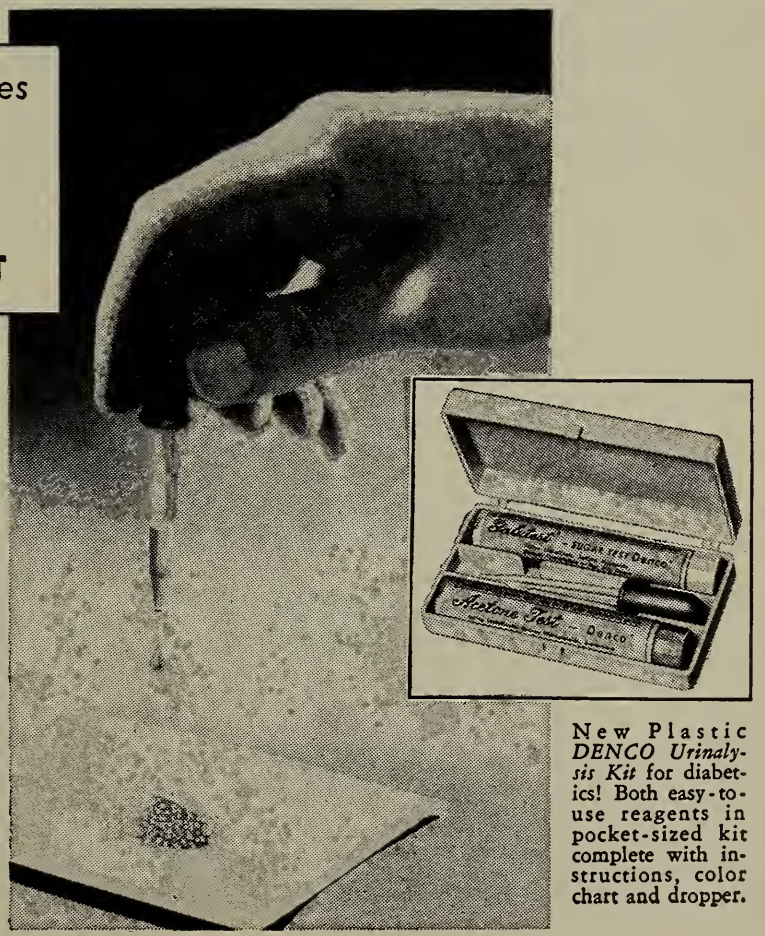

New Plastic *DENCO Urinalysis Kit* for diabetics! Both easy-to-use reagents in pocket-sized kit complete with instructions, color chart and dropper.

BOOKS RECEIVED

ALLERGIC CHILD, THE. Harry Swartz, M.D., Coward-McCann, Inc., 210 Madison Ave., New York City, 1954. 297 pages, $3.95.

ANATOMY FOR SURGEONS: VOL. 1—The Head and Neck. W. Henry Hollinshead, Ph.D., Professor of Anatomy, Mayo Foundation, University of Minnesota. Paul B. Hoeber, Inc., 49 East 33rd St., New York 16, N. Y., 1954. 560 pages, 326 illustrations. $10.00.

ANTISEPTICS, DISINFECTANTS, FUNGICIDES, AND CHEMICAL AND PHYSICAL STERILIZATION. Edited by George F. Reddish, Ph.D., Sc.D. (Hon.), St. Louis College of Pharmacy and Allied Sciences. Lea & Febiger, Philadelphia, 1954. 841 pages, 71 illustrations. $15.00.

AUDITORY DISORDERS IN CHILDREN—A Manual for Differential Diagnosis. Helmer R. Myklehurst, Professor of Audiology, Professor of Otolaryngology, Northwestern University, Grune & Stratton, New York, 1954. 367 pages. $6.00.

CARDIOVASCULAR SURGERY. Gerald H. Pratt, M.D., F.A.C.S., Associate Clinical Professor of Surgery, New York University College of Medicine. Lea & Febiger, Philadelphia, 1954. 843 pages, 358 illustrations on 261 figures and 4 color plates. $15.00.

CHILDREN FOR THE CHILDLESS—A Concise Explanation of the Medical, Scientific and Legal Facts About Conception, Fertility, Sterility, Heredity, and Adoption. Edited by Morris Fishbein, M.D., Doubleday & Company, Inc., Garden City, N. Y., 1954. 223 pages. $2.95.

CLINICAL ORTHOPTIC PROCEDURE—2nd Ed.—Reference Book on Clinical Methods of Orthoptics. William Smith, O.D., Associate Instructor in Optometry and Instructor of Orthoptics and Visual Training, Massachusetts College of Optometry, Boston. The C. V. Mosby Company, 1954. 523 pages, 91 illustrations. $10.00.

CURRENT THERAPY—1954—Latest Approved Methods of Treatment for the Practicing Physician. Edited by Howard F. Conn, M.D. W. B. Saunders Company, Philadelphia, 1954. 898 pages. $11.00.

DIGITAL PLETHYSMOGRAPHY — Introducing a Method for Recording Simultaneously the Time Course of the Rate of Blood Flow Into and Out of the Finger Tip. George E. Burch, M.D., Henderson Professor of Medicine, Tulane University School of Medicine, Grune and Stratton, New York, 1954. 130 pages. $5.00.

DISEASES OF THE LIVER. Mitchell A. Spellberg, M.D., F.A.C.P., Associate Professor of Clinical Medicine, University of Illinois School of Medicine, Grune and Stratton, New York, 1954. 646 pages. $16.50.

DYNAMICS OF VIRUS AND RICKETTSIAL INFECTIONS, THE—International Symposium. Editors, Frank W. Hartman, M.D., Frank L. Horsfall, Jr., M.D., and John G. Kidd, M.D. The Blakiston Company, Inc., New York, 1954. 461 pages. $7.50.

ELECTROCARDIOGRAPHY. E. Grey Dimond, M.D., Professor and Chairman, Department of Medicine; Director, Cardiovascular Laboratory, University of Kansas Medical Center. The C. V. Mosby Company, St. Louis, 1954. 261 pages, 272 illustrations. $14.00.

GERMAN-ENGLISH, ENGLISH-GERMAN DICTIONARY FOR PHYSICIANS—In Two Volumes. Fritz Lejeune. Grune & Stratton, New York, 1952. Vol. 1, $6.00; Vol. 2, $14.00.

HEPATIC CIRCULATION AND PORTAL HYPERTENSION, THE. Charles G. Child, III, M.D., Professor of Surgery, Tufts Medical School. From the Department of Surgery and the Laboratory of Surgical Research, New York Hospital—Cornell Medical Center. W. B. Saunders Company, Philadelphia, 1954. 444 pages, 132 figures. $12.00.

LECTURES ON THE THYROID. J. H. Means, M.D., Jackson Professor of Clinical Medicine, Emeritus, Harvard University. Harvard University Press, Cambridge, 1954. 113 pages. $3.00.

LUNG CANCER. Seymour M. Farber, M.D., Associate Clinical Professor of Medicine, U. C. School of Medicine. Charles C. Thomas, publisher, Springfield, Illinois, 1954. 157 pages, $4.75.

MANUAL OF CLINICAL MYCOLOGY—2nd Ed. Norman F. Conant, Ph.D., Professor of Mycology and Associate Professor of Bacteriology; David Tillerson Smith, M.D., Professor of Bacteriology and Associate Professor of Medicine; Roger Denio Baker, M.D., Chief, Laboratory Service, Professor of Pathology; Jasper Lamar Callaway, M.D., Professor of Dermatology and Syphilology, all from Duke University School of Medicine; and Donald Stover Martin, M.D., Chief, Bacteriology Section, Communicable Disease Center, Chamblee, Georgia. W. B. Saunders Company, Philadelphia, 1954. 456 pages, 202 figures. $6.50.

MAYO CLINIC DIET MANUAL—2nd Ed. The Committee on Dietetics of the Mayo Clinic. W. B. Saunders Company, Philadelphia, 1954. 247 pages. $5.50.

PEDIATRIC PROBLEMS IN CLINICAL PRACTICE—Special Medical and Psychological Aspects. H. Michal-Smith, Ph.D., Editor, Research Associate in Pediatrics, New York Medical College, Chief Clinical Psychologist, Flower and Fifth Avenue Hospital. Grune and Stratton, New York, 1954. 310 pages. $5.50.

PRACTICAL ELECTROCARDIOGRAPHY. Henry J. L. Marriott, M.D., Associate Professor of Medicine, University of Maryland. The Williams and Wilkins Company, 1954. 171 pages. $5.00.

RECONSTRUCTIVE SURGERY OF THE EYELIDS—2nd Ed. Wendell L. Hughes, M.D., F.A.C.S., Hempstead, N. Y. The C. V. Mosby Company, St. Louis, 1954. 260 pages, 268 illustrations. $8.50.

ROENTGENOGRAPHIC TECHNIQUE—A Manual for Physicians, Students and Technicians—4th Ed, Thoroughly Revised. Darmon Artelle Rhinehart, M.D., F.A.C.R., Emeritus Professor of Anatomy and Roentgenology, University of Arkansas. Lea & Febiger, Philadelphia, 1954. 454 pages. $8.50.

TECHNIQUE OF PSYCHOTHERAPY, THE. Lewis R. Wolberg, M.D., Director, Postgraduate Center of Psychotherapy, Associate Clinical Professor of Psychiatry, New York Medical College. Grune & Stratton, New York, 1954. 869 pages. $14.75.

THEORY AND PROBLEMS OF ADOLESCENT DEVELOPMENT. David P. Ausubel, M.D., Ph.D., Bureau of Educational Research, University of Illinois. Grune and Stratton, New York, 1954. 530 pages. $10.00.

THYROID, THE—A Physiological, Pathological, Clinical and Surgical Study. T. Levitt, M.A., F.R.C.S.(Eng.), F.R.C.S.(Edin.), F.R.C.S.I., Hunterian Professor of the Royal College of Surgeons. E. & S. Livingstone Ltd., London; distributed through Williams and Wilkins Co., Baltimore, 1954. 606 pages. $20.00.

VITAMINS IN MEDICINE, THE—3rd Ed. Franklin Bicknell, D.M., M.R.C.P., and Frederick Prescott, M.Sc., Ph.D., F.R.I.C., M.R.C.P., Clinical Research Director, The Wellcome Foundation, London. Grune & Straton, New York, 1953. 784 pages. $13.00.

YOU AND YOUR HEALTH. Edwin P. Jordan, M.D., Executive Director, American Association of Medical Clinics, G. P. Putnam's Sons, 210 Madison Ave., New York City, 1954. 296 pages. $3.95.

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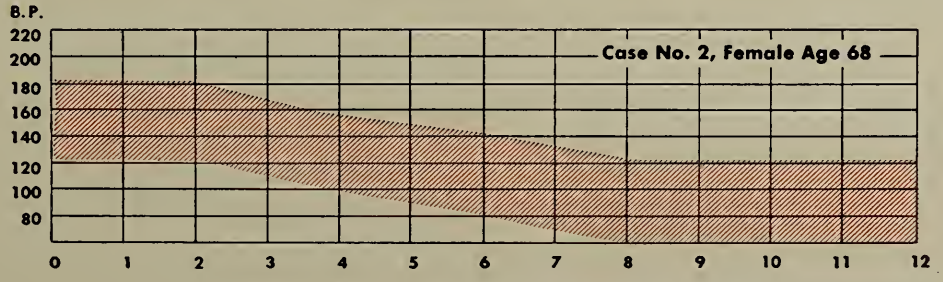

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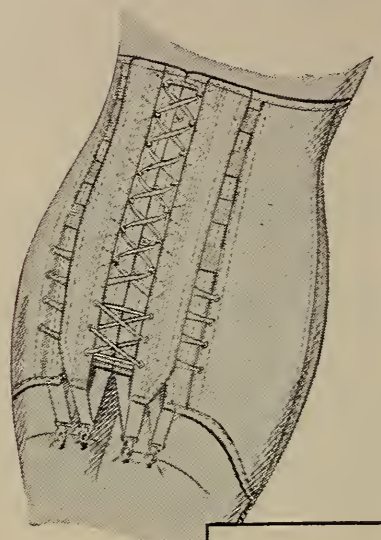

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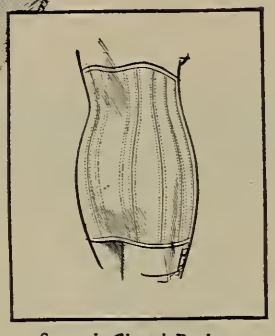

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Study of Atmosphere Contaminants As Cause of Lung Cancer Urged

Study of cancer-producing hydrocarbons in the atmosphere of urban areas and their possible connection with the increasing frequency of human lung cancer was urged in two articles in recent issues of *Archives of Industrial Hygiene and Occupational Medicine,* published by the American Medical Association.

One article discussed the formation of skin tumors and cancers on mice following the painting of their skin with chemicals removed from the atmosphere of Los Angeles. The atmospheric samples were collected during both smog and non-smog periods of the year, and the chemicals removed. These chemicals were then painted on 76 black mice three times a week.

"The first tumor appeared in 15 months and three days (465 days) after the initiation of painting," the article stated. "There were 31 survivors at the time of the appearance of the first tumor, and 13 tumor-bearing mice have thus far been demonstrated."

The skin tumors appeared primarily in the painted area, according to the article. Nine cancers were proved, it was stated, and multiple tumors occurred in four mice. Sixty-nine other mice were not painted with such chemicals and acted as controls. No skin tumors were seen in the 37 of these mice that were alive at the time the first tumor appeared in the test animals.

The second article described how skin tumors and cancers formed on black mice following painting with gasoline-engine exhaust products.

"This pollution source is an ever-increasing one, and its study in Los Angeles County is of particular interest in that a large number of automobiles (two million) are driven an average of 15,000,000 miles per day and add their pollution products to a frequently already highly polluted atmosphere known as smog," the article pointed out.

"One hundred eight black mice were used in these experiments. The first tumor appeared in 13 months and 25 days (390 days) after the initiation of painting. Eighty-six mice survived at the time of the appearance of the first tumor, and 38 tumor-bearing mice have thus far been demonstrated.

"The incidence of multiple tumors was remarkable. More than 60 per cent of the tumor-bearing animals bore multiple tumors. In 22 of the 38 tumor-bearing animals, carcinomas were demonstrated.

"Sixty-nine black mice were used as controls, and 42 were alive at the time of the first tumor appearance in the test animals. No skin tumors were seen in the control mice."

The increasing frequency of lung cancer presents several facets which indicate that the atmospheric

(Continued on Page 88)

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MDR—Minimum daily requirements for adults.

Study of Atmosphere Contaminants As Cause of Lung Cancer Urged

(Continued from Page 84)

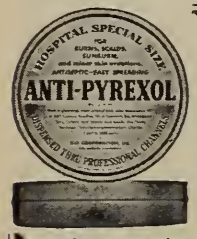
environment may be etiologically associated with this observed increase, the articles stated.

A study of the atmosphere and the sources of man-created pollutants, it was said, seems especially indicated with the realization that (1) a disproportionate rise in incidence of lung cancer has been noted in urban population groups; (2) the atmosphere contains cancer-producing substances, and (3) the accelerated rate of lung cancer frequency parallels most dramatically the industrialization of our society with its concomitant increase in air pollution.

"The presence of carcinogenic hydrocarbons in the atmosphere of urban areas indicates the need for their study to assess their possible role in the observed increasing frequency of human lung cancer," one article stressed. "The parallel between this increase and the urbanization and industrialization of our society is positive.

"The introduction of the gasoline engine as the most prominent source of motive power is one of the chief characteristics of this industrialization, and, in consequence, petroleum combustion and oxidation products have become one of the main air-pollutant materials. The experimental carcinogenicity of certain of these products has been established, and suspicion must be directed to them in relation to the lung cancer increase."

One article was prepared by Paul Kotin, M.D., Hans L. Falk, Ph.D., Paul Mader, Ph.D., and Marilyn Thomas, B.A., all of Los Angeles; the second was prepared by Drs. Kotin and Falk and Miss Thomas. The authors are associated with the departments of pathology and biochemistry, school of medicine, University of Southern California, and the laboratory of the Los Angeles County Air Pollution Control District.



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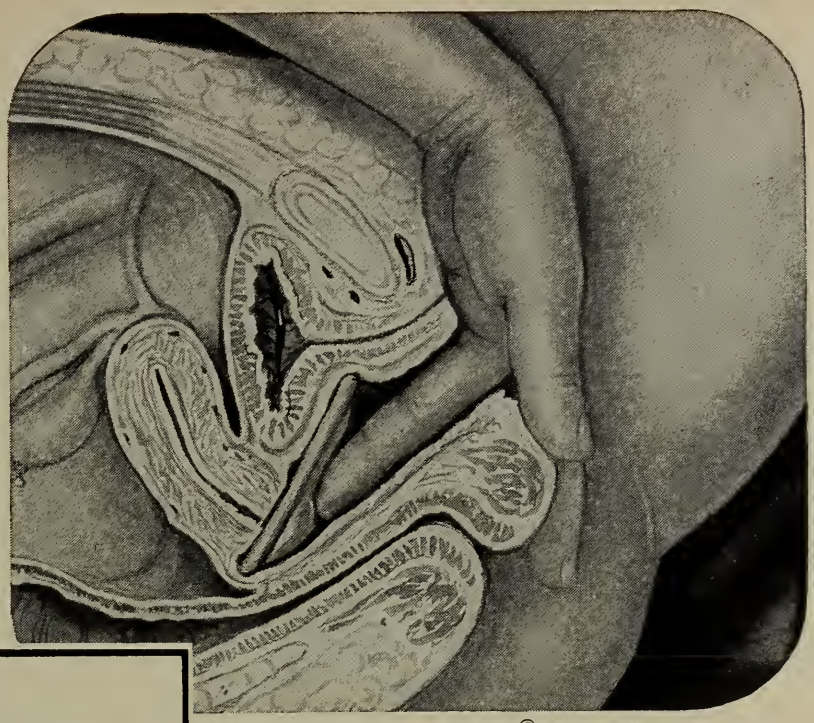

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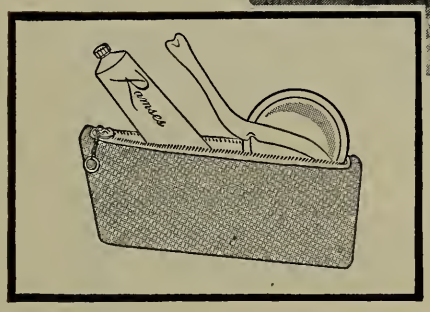

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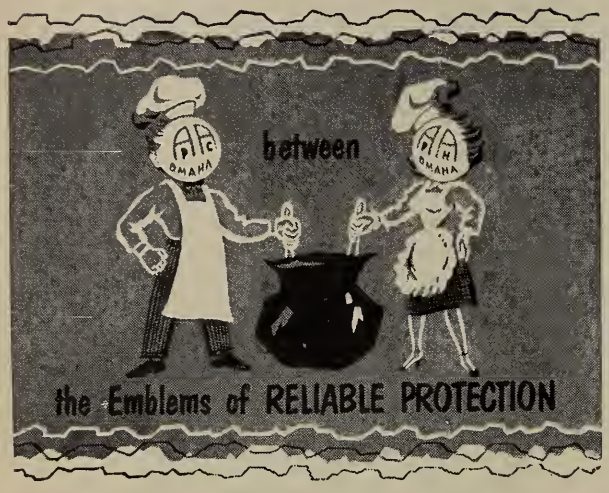

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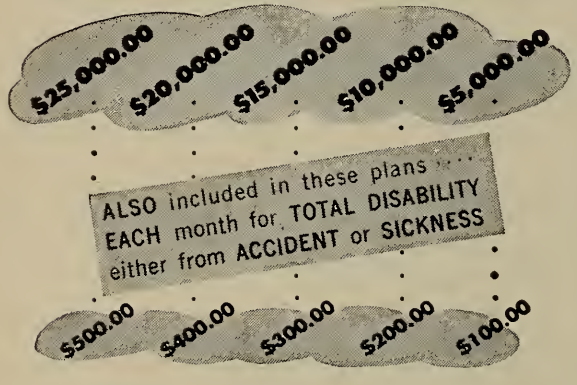

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New Sedative Successful in Treatment Of Psychiatric Patients

A new sedative which quiets severely excited patients without rendering them confused or otherwise inaccessible to psychotherapy, was described in a recent issue of *Archives of Neurology and Psychiatry*, published by the American Medical Association.

The sedative, a synthetic drug called chlorpromazine, was used on 71 psychiatric patients ranging in age from 18 to 82 years over a period of four months, according to Drs. H. E. Lehmann and G. E. Hanrahan, of the Verdun Protestant Hospital, Montreal, Canada.

Use of the drug arrested imminent psychotic attacks in four patients, affected recovery and sustained cessation of symptoms in 13 patients, reduced symptoms to the point where patients were able to leave the hospital in seven cases, lessened the symptoms of 27 patients, and failed to cause any improvement in 12 patients, the doctors said. Eight of the patients were still under treatment at the time the report was made.

"The drug is of unique value in the symptomatic control of almost any kind of severe excitement," the doctors pointed out. "It has pronounced effect on the central nervous system.

"We are particularly impressed with the favorable results in our manic-depressive patients in a chronic manic state, all of whom had been continuously manic or hypomanic for more than a year and had previously failed to respond to standard therapeutic procedures or had had only brief remissions.

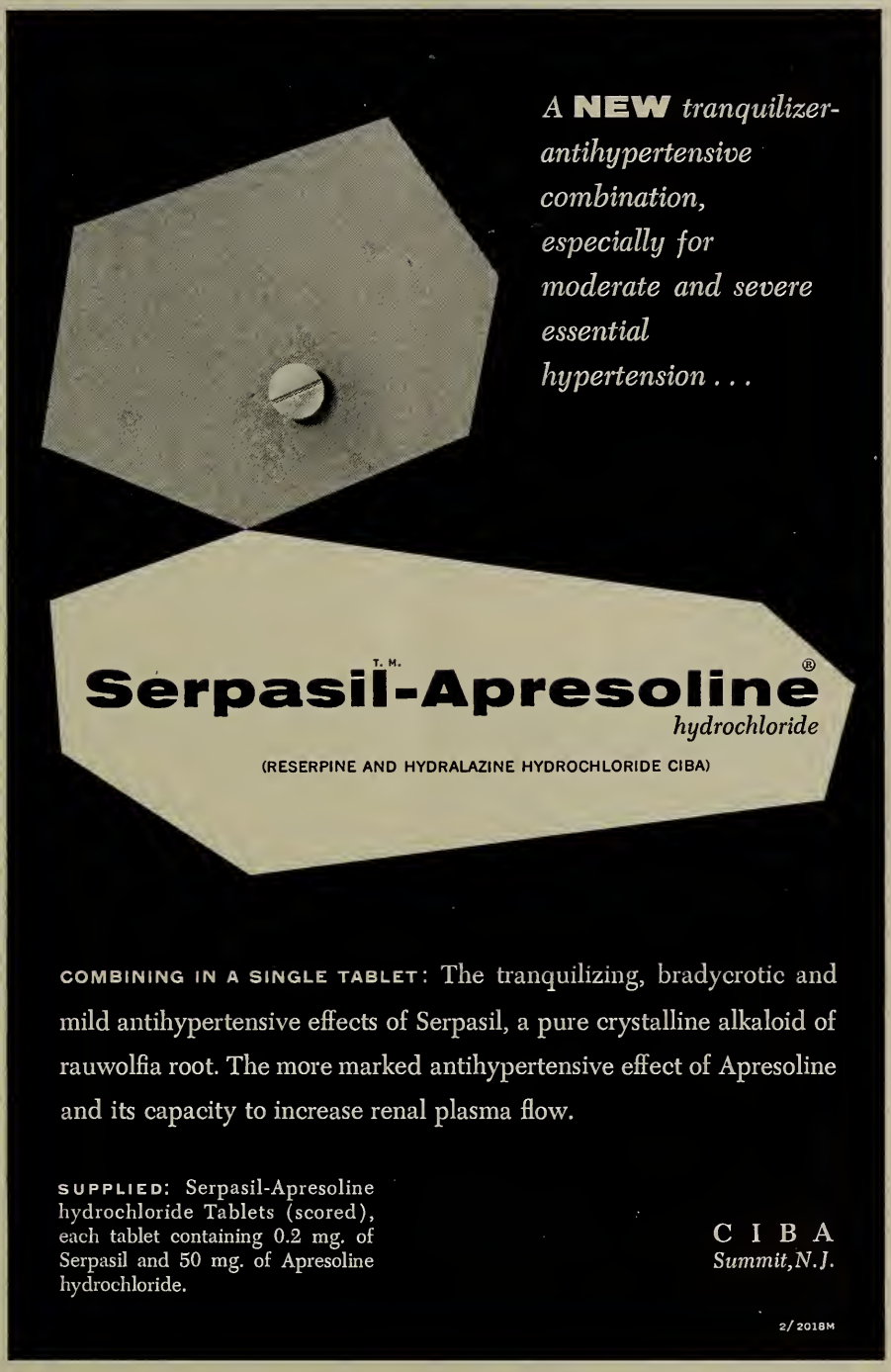
"Psychomotor excitement is usually reduced significantly within 24 hours, and sleep at night is often restored within the same period. Feeding problems disappear rapidly, and the patient soon becomes cooperative to nursing care. The psychiatrist is surprised to find his manic patient amenable to reason.

"In acute manic states, chlorpromazine therapy usually leads to recovery in a shorter time than is required with other, established treatment procedures."

Some of the patients appeared to be without psychiatric symptoms within a few days after intramuscular injections of the drug were begun, the doctors said, but treatment was contined for some time in order to avoid relapses.

Although chlorpromazine has sometimes given results when other treatments, including insulin and electric shock, have proved of no avail or have not produced complete remission, it should not be expected to be a cure-all in psychoneuroses, the doctors stressed. If traumatic factors cannot be excluded from the environment and major conflicts persist, chlorpromazine can be considered only an adjuvant to psychotherapy, they added.

Some unpleasant side-effects to the drug were noted, but they were of minor significance, according to the doctors.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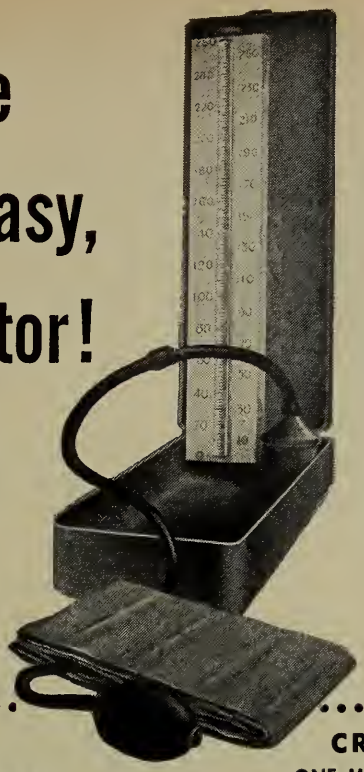

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Samuel R. Sherman	San Francisco	1955

Committee on Associated Societies and Technical Groups

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H. Gordon MacLean (Chairman)	Oakland	1956
Charles E. Grayson	Sacramento	1957

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Paul Foster	Los Angeles	1956
Loren R. Chandler	San Francisco	1957

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William L. Bender	San Francisco	1956
Justin J. Stein (Chairman)	Los Angeles	1957
John C. Ruddock (Consultant)	Los Angeles	

* Members appointed each year by the Chairman of the Council.

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John E. Young	Fresno	1957

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Sidney J. Shipman (President-Elect)	Ex-officio	

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J. Lafe Ludwig	Los Angeles
Frank A. MacDonald	Sacramento
H. R. Madeley	Vallejo
Wilson Stegeman	Santa Rosa

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George C. Griffith	Los Angeles	1957
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Roger O. Egeberg (Secretary on Medicine)	Ex-officio	
Lyman A. Brewer III (Secretary on Surgery)	Ex-officio	

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The Committee on Public Relations consists of the chairmen of the following standing committees and certain general officers of the Association, all serving ex-officio.

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L. H. Fraser....Chairman, Committee on Medical Economics
H. Gordon MacLean, Chairman,
Committee on Associated Societies and Technical Groups
Arlo A. Morrison....President
Sidney J. Shipman....President-Elect
J. Lafe Ludwig....Los Angeles
Frank A. MacDonald....Sacramento

Cancer Commission

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L. Henry Garland (Secretary)	San Francisco	1955
Justin J. Stein	Los Angeles	1955
Robert A. Scarborough	San Francisco	1956
Erle Henriksen	Los Angeles	1956
Albert C. Daniels	San Francisco	1956
John W. Cline	San Francisco	1957
David A. Wood (Vice-Chairman)	San Francisco	1957
John M. Kenney	Santa Rosa	1957

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New and Nonofficial Remedies: A.M.A. Council on Pharmacy and Chemistry, J. B. Lippincott, p. 243, 1953.

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N. Y. Physician *31*:20 (Jan.) 1949.

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ROSTER OF COUNTY MEDICAL SOCIETIES, CALIFORNIA MEDICAL ASSOCIATION

(County society secretaries are requested to notify California Medicine promptly when changes are indicated in their roster information.)

Alameda-Contra Costa Medical Assn., 6230 Claremont Avenue, Oakland 18. Meets Third Monday, 8:15 p.m., Hunter Hall, Oakland.
Pres., James B. Graeser, 298 Grand Ave., Oakland.
Secy., Bernard B. Gadwood, 2815 MacDonald Ave., Richmond.

Butte-Glenn Medical Society. Meets Fourth Thursday.
Pres., Thomas Elmendorf, Masonic Bldg., Willows.
Secy., Karl J. Chiapella, 184 E. 5th St., Chico.

Fresno County Medical Society, 616 Security Bank Building, Fresno. Meets Second Tuesday, 6:30 p.m., Sunnyside Country Club.
Pres., Fred E. Cooley, 4313 E. Tulare St., Fresno.
Secy., J. Cooper Collins, 2920 Fresno St., Fresno.

Humboldt County Medical Society. Meets First Thursday.
Pres., Clarence Crane, Jr., 492 Main St., Ferndale.
Secy., Ted W. Loring, 715 I St., Eureka.

Imperial County Medical Society. Meets Second Tuesday, 8 p.m., Pioneer Memorial Hospital, Brawley.
Pres., Sidney M. Tepper, 136 N. 5th St., El Centro.
Secy., Ernest Brock, 200 S. Imperial Ave., Imperial.

Inyo-Mono County Medical Society. Meets Fourth Tuesday except December, January, February.
Pres., Victor H. Hough, Lone Pine.
Secy., Robert W. Denton, 611 W. Line, Bishop.

Kern County Medical Society, 1300 Chester Avenue, Bakersfield. Meets Third Tuesday, 7:30 p.m., Stockdale Country Club except June, July, August.
Pres., L. N. Osell, 2011 18th St., Bakersfield.
Secy., R. W. Burnett, 515 Truxtun Ave., Bakersfield.

Kings County Medical Society. Meets Second Monday, 8:00 p.m., Legion Hall, Hanford.
Pres., Lloyd Christensen, Van Sicklen Bldg., Hanford.
Secy., N. F. Sorensen, Van Sicklen Bldg., Hanford.

Lassen-Plumas-Modoc County Medical Society. Meets on call.
Pres., R. M. Peters, Portola.
Secy., Charles W. Brown, Western Pacific Hospital, Portola.

Los Angeles County Medical Assn., 1925 Wilshire Blvd., Los Angeles 57. Meets First and Third Thursdays, 1925 Wilshire Blvd., Los Angeles.
Pres., J. Philip Sampson, 2200 Santa Monica Blvd., Santa Monica.
Secy., Ewing L. Turner, 1930 Wilshire Blvd., Los Angeles 57.

Madera County Medical Society.
Pres., Omar U. Need, 117 S. B St., Madera.
Secy., Gordon C. Hall, 501 E. Yosemite, Madera.

Marin County Medical Society. Meets Meadow Club of Tamalpais, Fourth Thursday of every month, 7:00 p.m.
Pres., Leo L. Stanley, 1322 5th Ave., San Rafael.
Secy., Wm. Burgett Smith, 711 D St., San Rafael.

Mendocino-Lake County Medical Society.
Pres., Olga A. Miller, Box X, Talmage.
Secy., Martin S. Barnes, 615 Main, Fort Bragg.

Merced County Medical Society. Meets Fourth Thursday, Hotel Tioga, Merced.
Pres., William Fountain, Shaffer Bldg., Merced.
Secy., John East, 652 W. 20th Street, Merced.

Monterey County Medical Society. Meets First Thursday.
Pres., A. C. Mitchell, 576 Hartnell, Monterey.
Secy., Clyn Smith, Jr., Cass and Carmelita, Monterey.

Napa County Medical Society. Meets Second Wednesday.
Pres., Harold E. James, Sanitarium, Calif.
Secy., Merle F. Godfrey, 1519 Jefferson, Napa.

Orange County Medical Association, 1226 N. Broadway, Santa Ana. Meets First Tuesday, 7:00 p.m.
Pres., A. Norton Donaldson, 1330 N. Main St., Santa Ana.
Secy., Chad M. Harwood, 1202 N. Broadway, Santa Ana.

Placer-Nevada-Sierra County Medical Society. Meets every second Wednesday of each month.
Pres., John R. Topic, 1166 High St., Auburn.
Secy., T. J. Rossitto, 1166 High St., Auburn.

Riverside County Medical Association. Meets Second Monday, 8:00 p.m., El Loro Room, Mission Inn.
Pres., Fred D. Lord, 4060 Orange St., Riverside.
Secy., John S. O'Toole, 3616 Main St., Riverside.

Sacramento Society for Medical Improvement, 2731 Capitol Ave., Sacramento. Meets Third Tuesday, 8:30 p.m., Sutter Hospital Auditorium.
Pres., A. E. Berman, 2901 Capitol Ave., Sacramento.
Secy., Frank G. Schiro, 815 30th St., Sacramento.

San Benito County Medical Society. Meets First Thursday, Hazel Hawkins Memorial Hospital, Hollister.
Pres., E. C. Sheldon, 956 San Benito St., Hollister.
Secy., Peter Jones, Bank of America Bldg., Hollister.

San Bernardino County Medical Society. Meets First Tuesday, 8:00 p.m., San Bernardino County Charity Hospital.
Pres., Leonard M. Taylor, 3549 Valencia Ave., San Bernardino.
Secy., Carl M. Hadley, 315 Platt Bldg., San Bernardino.

San Diego County Medical Society, 101 Medical-Dental Bldg., San Diego 1. Meets Second Tuesday, Manor Hotel.
Pres., Howard A. Ball, 307 Medico-Dental Bldg., 233 A St., San Diego 1.
Secy., Maurice J. Brown, 2001 Fourth Ave., San Diego 1.

San Francisco Medical Society, 2180 Washington St., San Francisco 9. Meets Second Tuesday, 8:15 p.m., 2180 Washington St., San Francisco 9.
Pres., Samuel R. Sherman, 2107 Van Ness Ave., San Francisco.
Secy., Matthew N. Hosmer, 384 Post St., San Francisco.

San Joaquin County Medical Society. Meets First Thursday, 8:15 p.m., American Trust Bldg., Stockton.
Pres., James Baker, 845 N. California St., Stockton 3.
Secy., F. A. McGuire, 307 Medico-Dental Bldg., Stockton.

San Luis Obispo County Medical Society. Meets Third Saturday, 7:00 p.m., Golden Dragon Cafe, San Luis Obispo.
Pres., Ernest Werbel, 1170 Marsh St., San Luis Obispo.
Secy., Tibor Beresky, 1304 Garden St., San Luis Obispo.

San Mateo County Medical Society, 122 Second Ave., San Mateo. Meets Third Tuesday of each month.
Pres., Bradley C. Brownson, 23 Baldwin Ave., San Mateo.
Secy., Norman C. Fox, 512 Jenevein Ave., San Bruno.

Santa Barbara County Medical Society, 300 West Pueblo St., Santa Barbara. Meets Second Monday, Cottage Hospital.
Pres., Laurence E. Heiges, 202 E. Cypress, Lompoc.
Secy., Arthur E. Wentz, 300 W. Pueblo, Santa Barbara.

Santa Clara County Medical Society, 1024 The Alameda, San Jose 26. Meets Third Monday of every month.
Pres., Burt L. Davis, 261 Hamilton Ave., Palo Alto.
Secy., Dan Brodovsky, St. Claire Bldg., San Jose.

Santa Cruz County Medical Society. Meets every Second month, Second Tuesday. Time, place to be announced.
Pres., D. S. Sedgwick, Capitola.
Secy., Samuel B. Randall, 230 Walnut Ave., Santa Cruz.

Shasta County Medical Society. Meets First Monday.
Pres., H. Harper Thorpe, 1529 Market St., Redding.
Secy., Roy W. Thomas, 1555 Court St., Redding.

Siskiyou County Medical Society. Meets Sunday on call.
Pres., Albert A. Newton, 807 S. Main, Yreka.
Secy., Victor J. Thompson, Weed Hospital, Weed.

Solano County Medical Society. Meets Second Tuesday, 8:00 p.m., Casa de Vallejo Hotel, Vallejo.
Pres., Herbert L. Joseph, 607 Carolina, Vallejo.
Secy., Robert L. Garrett, 327 Georgia, Vallejo.

Sonoma County Medical Society, 300 American Trust Bldg., Santa Rosa. Meets Second Thursday.
Pres., William J. Rudee, 1049 Fourth St., Santa Rosa.
Secy., Frank E. Lones, 300 American Trust Bldg., Santa Rosa.

Stanislaus County Medical Society. Meets Third Thursday, 7 p.m., Hotel Hughson, Modesto.
Pres., Howard F. Nachtman, 222 McHenry Ave., Modesto.
Secy., J. Lyle Spelmann, 140 McHenry Ave., Modesto.

Tehama County Medical Society. Meets at call of President.
Pres., O. T. Wood, Red Bluff.
Secy., J. W. Ingle, Corning.

Tulare County Medical Society.
Pres., Vincent M. Dungan, 217 S. Willis St., Visalia.
Secy., James J. McNearney, 140 N. M St., Tulare.

Ventura County Medical Society. Meets Second Tuesday 7:15 p.m., Colonial House, Oxnard.
Pres., James H. Nelson, 326 Topa Topa Dr., Ojai.
Secy., Franklin K. Helbling, 34 N. Ash St., Ventura.

Yolo County Medical Society. Meets First Wednesday.
Pres., John A. Saltsman, 312 Elizabeth St., Vacaville.
Secy. William T. Robinson, Woodland Clinic, Woodland.

Yuba-Sutter-Colusa County Medical Society. Meets Second Tuesday.
Pres., Paul C. Cress, 605 4th St., Marysville.
Secy., Robert I. Hodgin, 729 D St., Marysville.

(For roster of C.M.A. committees and other organizations, see last month's issue.)

American Medical Association Forms New Group to Study Drug-Induced Anemias

A special group, whose purpose will be to develop new methods for the earliest possible reporting of drug-induced blood abnormalities and to seek ways of experimental approach that might enable more accurate prediction of potential dangers from new therapeutic agents, has been organized by the American Medical Association.

At its first meeting, the Subcommittee on Blood Dyscrasias decided the best method for securing accurate information on toxic reactions of the blood-cell-forming system is to enlist the cooperation of selected blood centers in various parts of the country. Sixty such centers have been invited to report cases of hypoplastic anemia, with practically unanimous acceptance.

To find new research approaches to the problem of blood abnormalities caused by drugs, the subcommittee plans to arrange a symposium to be attended by hematologists, immunologists, pharmacologists, allergists and biochemists. The subcommittee hopes that discussions by leaders in these fields will suggest some clue that will lead to more accurate appraisal of potential hazards in new agents.

It is known that certain physical and chemical agents play a direct causative role in hypoplastic anemia, although data on the etiology and incidence of this group of diseases are inaccurate and incomplete, Dr. Paul L. Wermer, Chicago, secretary of the subcommittee, said, adding:

"The danger exists that among the many newly-introduced and often widely-used therapeutic and household agents there may be some that have profound depressant effects on the hematopoietic system.

"Tragic experiences have led to the realization that continuation of the present sometimes unproperly organized and even haphazard method of reporting such abnormalities would not prevent occurrence of similar episodes in the future. Reporting of drug-caused dyscrasias must be improved, and the information on possible causative agents speedily brought to the attention of the profession to avert needless exposures."

Dr. Wermer pointed out that known causative agents of hypoplastic anemias may be divided into two groups—those agents that if administered in large enough doses cause varying degrees of bone marrow depression and damage in all human beings or exposed experimental animals, and those agents that have bone marrow depressant effects in a small, often insignificant percentage of exposed persons but do not have similar effects on experimental animals.

"Most of the drug-caused anemias belong to this second category," he stated. "Perhaps the syndromes observed are peculiar to the human species and may be in the nature of allergic or immunologic reactions.

(Continued on Page 22)

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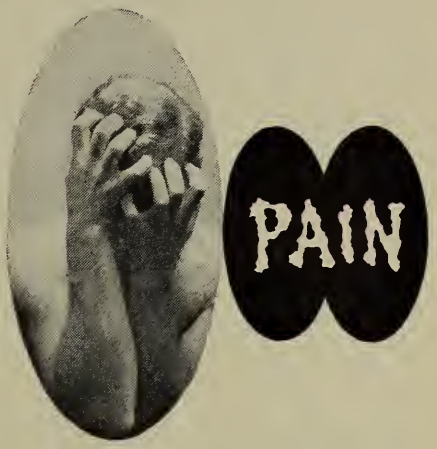

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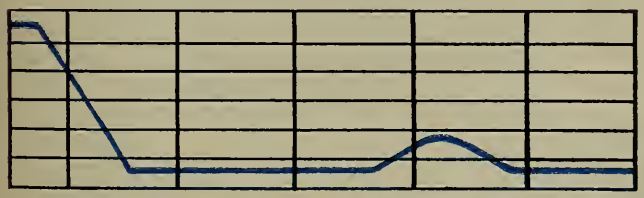

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Protection in capillary fragility:
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When threat of cardiac failure exists:
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(A special alkaloidal fraction of Veratrum viride, biologically standardized for hypotensive activity.)

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. . . for direct vasodilation plus added hypotensive and sedative actions of RAUWOLFIA.
Mannitol hexanitrate . **32 mg.**
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**Each contains Nitranitol 32 mg. and Phenobarbital 16 mg.*

DOSAGE: In blood pressures over 200 systolic, 2 tablets 4 times daily. In other cases, 1 or 2 tablets every 4 to 6 hours.

NOTE: *Nitranitol is exceptionally stable, assuring potency, so important in hypertensive medication.*

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Atomic Radiation Affected Pregnancy Outcome

Radiation from the atomic bomb explosion over Nagasaki, Japan, in 1945 had considerable effect on the outcome of pregnancies of women in the city who were pregnant at the time.

Among 30 pregnant women with major signs of radiation injury, there were three miscarriages, four stillbirths, three babies who died within the first month of life, three infants who died within the first year of life, and one who died at two and one-half years. Four of the surviving 16 children were mentally retarded.

Drs. James N. Yamazaki, Stanley W. Wright and Phyllis M. Wright, Los Angeles, found this evidence in a study of pregnant women exposed to the atomic blast at Nagasaki and their offspring. Their report appeared in a recent issue of the *American Journal of Diseases of Children*, published by the American Medical Association.

The pregnant women studied were divided into two groups—98 who were within the radiation area, 30 of whom showed what the physicians termed major radiation injury signs, and a control group of 113 pregnant women who were outside the radiation area of the city at the time of the bombing.

The overall morbidity and mortality of the outcome of pregnancy among the 30 women who suffered major radiation injury signs was approximately 60 per cent, as compared to 10 per cent among the 68 other pregnant women within the radiation area, and about 6 per cent among the 113 women outside the radiation area, the doctors stated.

In the group of 68 women who were within the radiation area but sustained no major signs of radiation injury, there were one miscarriage, two stillbirths, three babies who died within the first month of life, and one case of mental retardation.

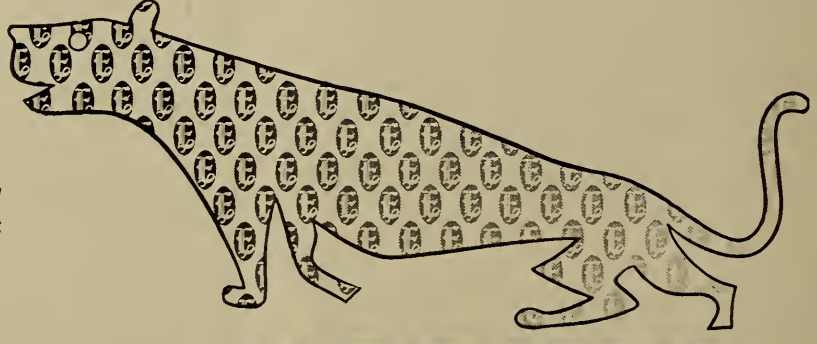
In the control group of 113 pregnant women outside the radiation area, there were two miscarriages, one stillbirth, one baby who died within the first month of life, and three infants who died within the first year of life.

In addition, the study disclosed that children born to mothers with major signs of radiation injury were retarded in growth and development, the doctors stated. These children were significantly smaller in height and head circumference than those children born to mothers in the control group.

"It is difficult to evaluate the effect of radiation on this mortality and morbidity, since other factors, such as trauma, burns, infections, etc., may have a deleterious effect on the fetus," the doctors stated.

(Continued on Page 22)

WHO SAYS a leopard can't change its spots?



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American Medical Association Forms New Group to Study Drug-Induced Anemias

(Continued from Page 11)

It does seem significant that these blood dyscrasias appear predominantly in patients with an allergic history and generally, but not necessarily, after several exposures to the precipitating agent.

"Possibly the lack of response in experimental animals may be due to the impracticability of testing sufficiently large numbers over a long enough period of time, or it may be due to an inherent insusceptibility of test animals."

Atomic Radiation Affected Pregnancy Outcome

(Continued from Page 18)

"The evidence strongly suggests, however, that radiation, either directly to the fetus or indirectly as a result of its effect on the maternal tissues, was of considerable importance in determining the outcome of these pregnancies."

The physicians are associated with the Laboratories of the Atomic Bomb Casualty Commission, Hiroshima, Japan, and the Department of Pediatrics, University of California Medical Center.

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Hormone Drug in Treatment of Poison Ivy

A hopeful note in treatment of poison oak or poison ivy dermatitis through use of a hormone drug was sounded by Drs. Leon Goldman and Robert H. Preston, Cincinnati.

Hydrocortisone in tablet or ointment form was given to 47 persons suffering from poison ivy reactions with "much improvement" resulting in 36 cases, the doctors wrote in a recent issue of the *Journal of the American Medical Association.*

The doctors stated that they found hydrocortisone 66 to 100 per cent more effective in such cases than other hormone drugs which have been used, and that treatment with hydrocortisone should begin as soon as possible after contact with the plants. Side reactions to the drug were mild, they added.

"Dermatitis from poison ivy or from poison oak is still a common form of seasonal dermatitis in many portions of the country," Drs. Goldman and Preston pointed out. "For the hypersensitive person, the skin reactions may be severe and may recur even with repeated episodes during a single season. Secondary complication, especially extensive pus producing infection, may give rise to serious internal involvement."

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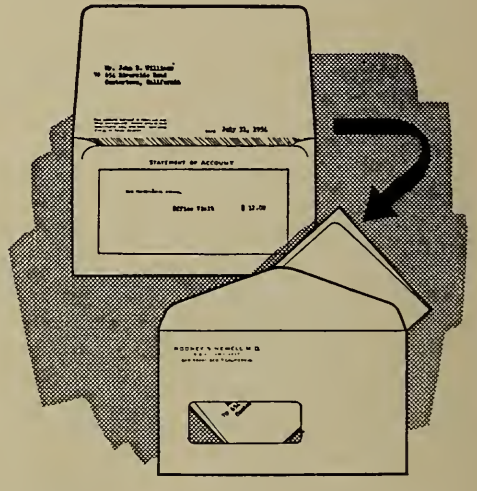

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Care for Your Hands—They Hold Your Future

A fortune teller may "read" your future in the lines of your hands. But, you hold your future in your own hands.

An important key to man's cultural development, your hands participate virtually every waking minute, not alone in actions but in expressing emotions and attitudes, according to Dr. Carl J. Potthoff, Rochester, Minn. So care for your hands, and don't ignore what seems to be a simple injury.

"Long accustomed to our hands, we seldom appreciate the complexity and coordination in such 'simple' acts as turning pages, counting change and tying shoelaces," Dr. Potthoff wrote in a recent issue of *Today's Health* magazine, published by the American Medical Association.

"Much of living involves finger activity. Accordingly, even though these digits are small, injuries to them should receive the best of care at once."

Dr. Potthoff outlined four paramount first aid suggestions to assure proper protection of the hands when finger and thumb injuries occur:

(1) Have all possible fractures x-rayed. Injuries that cause swelling at a joint, so common in athletics and manual work, are often fractures. Untreated, they may result in deformity, permanent enlargement at the joint and occasionally joint fixation.

(2) Do not apply a strong antiseptic to digit wounds, lest destruction or damage of tendons and nerves occur. If medical care is soon available, apply only a sterile dressing. If considerable delay will occur and specific medical advice cannot be obtained, place the finger under the tap and permit water to run gently over the cut; then apply a sterile dressing.

(3) With either wounds or possible fractures, the fingers should not be moved. An immobilization device may not be needed, but, if used, it is usually best to immobilize the finger without changing its position. Place a large wad of cloth in the palm and apply a bandage loosely over the entire hand.

(4) Unless sutured, a severed finger or thumb tendon will not grow together. Thus the function—flexion, extension, spreading or approximating of the digit—will be lost permanently. With delay in securing surgical correction, the tendon ends retract farther and farther from the site of the wound, especially with muscular action in the palm and wrist. Good first aid and early surgical attention are needed.

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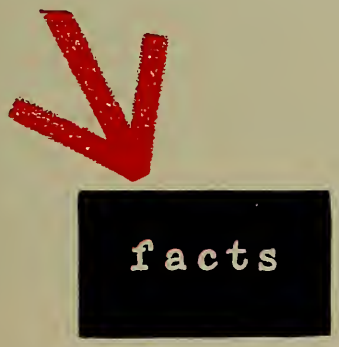

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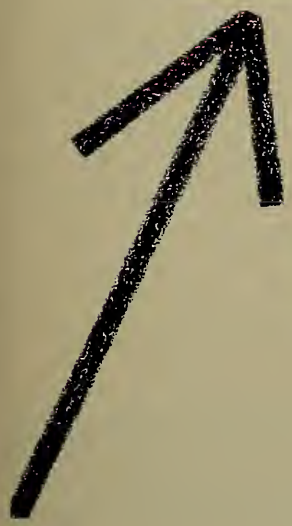

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• Bodansky & Bodansky: Biochemistry of Disease, 2nd ed., 1952, p. 337.
• Shallenberger, P. L. & Kerr, P. B.: Postgrad. Med. 13:32, 1953.

Cat Scratch Disease in 160 Patients

One hundred sixty cases of cat scratch disease, a relatively new clinical entity which may resemble other serious diseases, were reported in a recent issue of the *Journal of the American Medical Association.*

The majority of the patients afflicted with the condition had had some contact with cats and were in the younger age groups, according to Drs. Worth B. Daniels and Frank G. MacMurray, Washington.

Many of the patients had skin lesions that persisted from two weeks to two years, the doctors stated. Some of the lesions became as large as golf balls, and 80 per cent of the patients had such general symptoms of infection as chills, headache, generalized aching, weakness, nausea, abdominal pains and fever.

The doctors pointed out that in many of the cases cat scratch disease mimicked such diseases as infectious mononucleosis, tuberculosis, tularemia, malignant tumors, and infected cysts. A definite diagnosis of cat scratch disease was made in each case by means of a specific skin test, they added.

The exact causative factor of the disease is not known, the doctors stated. Although the symptoms will disappear spontaneously, use of some of the antibiotics may be beneficial in treating the disease.

Dr. Daniels is clinical professor of medicine and Dr. MacMurray instructor in medicine at George Washington University.

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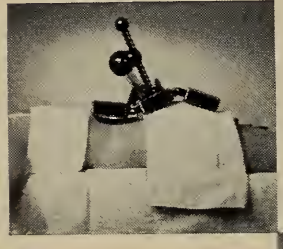

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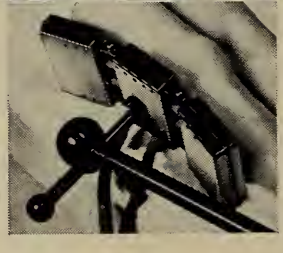

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Increase in Chemical Testing for Drunken Driving Urged

Increased use of chemical test evidence in drunken driving cases was urged editorially in a recent issue of the *Journal of the American Medical Association.*

"The growing use in the United States of chemical tests of the blood, urine, and breath for the apprehension and prosecution of persons driving while under the influence of alcoholic beverages has left little doubt in the minds of conscientious law enforcement agencies and physicians that these tests can effectively aid in protecting the innocent and convicting the guilty," the editorial stated.

Results of court cases during a 40-month period in New Haven, Conn., where breath-testing devices were used, showed an increase of guilty pleas from 23 to 61 per cent, the editorial related and added:

"This increase obviously indicated an acceptance of the validity of chemical tests by defendants, especially since the findings actually correspond to what the defendants knew they had consumed."

Other data from the New Haven study showed that convictions by both court and juries increased from 58 to 83 per cent and the over-all conviction rate for driving while intoxicated rose from 55 to 93 per cent.

A 1952 National Safety Council report also was cited in which it was found that using chemical tests for evidence in drunken driving cases resulted in 100 per cent convictions in the Chicago Park District, 99 per cent in Detroit and Minneapolis, and 96 in Milwaukee and Los Angeles.

The editorial concluded:

"In view of our nationwide automobile slaughter, one that shows discouragingly few signs of abating, in self defense more communities in the United States should seriously consider the introduction of chemical test evidence in cases involving charges of operating an automobile while under the influence of alcoholic beverages."

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*Steigmann, F., and Goldberg, E., J. Lab. & Clin. Med. *42*:955 (1953).

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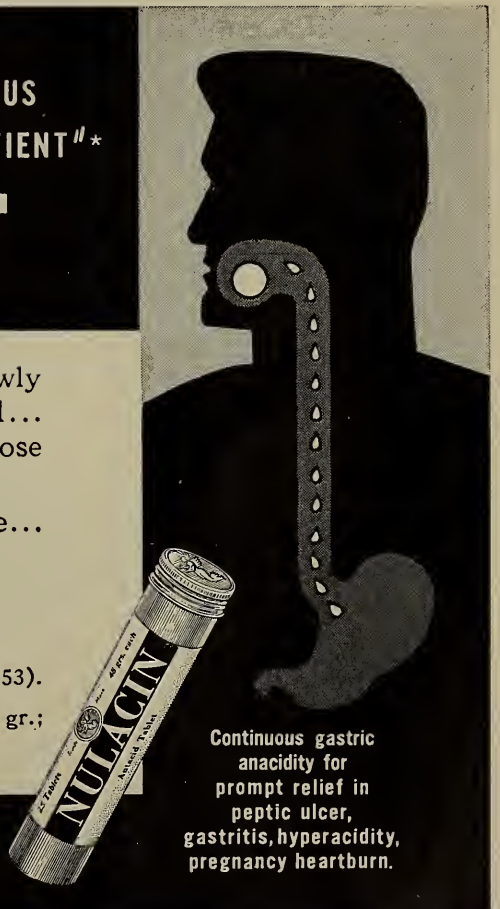

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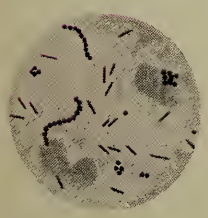

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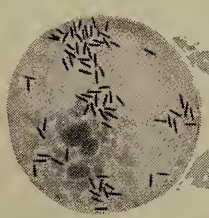

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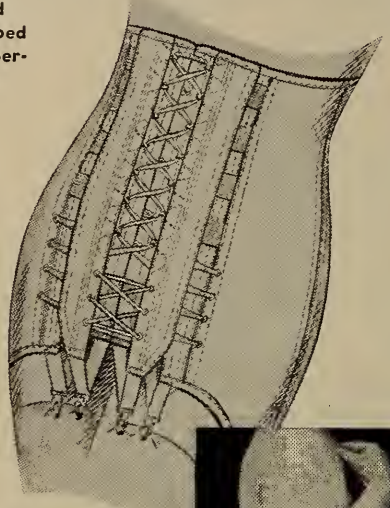

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Voluntary Health Insurance Gains Cited by American Medical Association President

Recent and encouraging developments in the increasing availability of insurance against expensive illnesses are among the most outstanding advances in voluntary health insurance.

This coverage, coming to be known as "major medical and hospital expense insurance," now protects more than one million persons, and the number is growing rapidly, Dr. Edward J. McCormick, Toledo, president of the American Medical Association, stated in discussing voluntary health insurance in a recent issue of the *Journal of the American Medical Association.*

"This type of insurance is being written both in individual and group plans, with benefits extended to dependent family members," Dr. McCormick wrote. "Reimbursable under this type of insurance are fees of surgeons and physicians, private duty nursing, all types of hospital expense, cost of drugs, medicaments, supplies, equipment, prosthetic appliances, physiotherapy, anesthesia, roentgenograms, laboratory tests, and many other items.

"Major medical and hospital expense policies are written somewhat like automobile collision insurance with deductible provisions ranging from $100 to $500. Maximum benefits are from $2,500 to $10,000. In order to keep premium rates moderate by encouraging the insured to get only necessary medical services, most insurers today agree to pay 75 to 80 per cent of expenses over the deductible amount, with the patient paying the remaining 20 or 25 per cent."

One of the greatest stories of our times in the health field is the remarkable voluntary effort by 100 million Americans to protect themselves against the economic burden of sickness and accidents, Dr. McCormick said, adding:

"The growth in the field of voluntary health insurance has been phenomenal. In 1941 only 16 million persons had protection against hospital and medical expenses; now there are nearly 100 million.

"In 1952 more than two billion dollars in benefit payments were distributed to the holders of health and accident insurance policies. The total does not include large sums paid under sick leave programs, union-administered plans, and employee mutual benefit associations.

"This should be an effective answer to those who still clamor for a program of compulsory national health insurance because they assume we are all living on the verge of poverty and cannot take care of our medical needs without federal assistance.

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Inauguration of American Medical Association President

The inaugural ceremony at which Dr. Walter B. Martin, Norfolk, Va., will be installed as the 108th president of the American Medical Association will be broadcast over a nationwide radio network on Tuesday, June 22.

Originating at 7:30 p.m., Pacific Coast Daylight Saving Time, (10:30 p.m. Eastern Daylight Saving Time) from the Palace Hotel in San Francisco, the program will be carried by more than 350 stations of the American Broadcasting Company's radio network. This will be the fifth consecutive year an A.M.A. president has addressed the nation on the night of his inauguration.

This year, for the first time, the ceremony also will be televised by a local station. KGO-TV will carry the program to television viewers in the San Francisco area.

In addition to Dr. Martin, other A.M.A. officers who will appear on the radio and television broadcasts are Drs. Dwight H. Murray, chairman of the Board of Trustees; Edward J. McCormick, outgoing president, and James R. Reuling, speaker of the House of Delegates.

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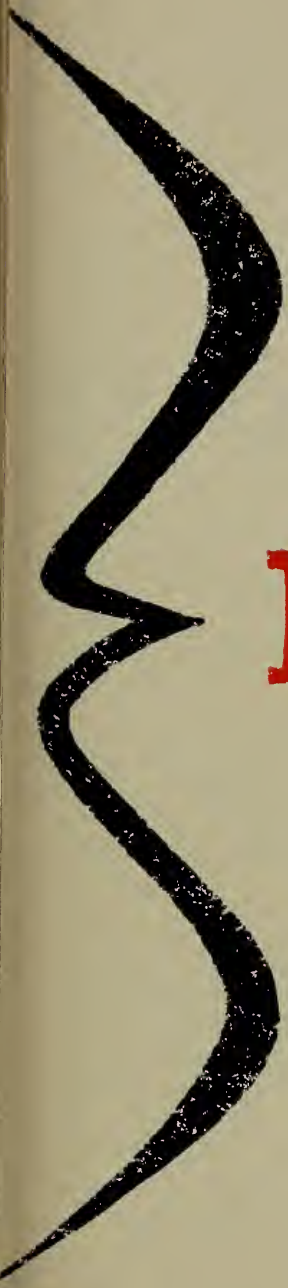

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A Community's Health Depends Upon The Community Itself

All public health problems are the direct result of a community's way of life, and any solution to these problems must include community action to succeed, it was stated editorially in a recent issue of the *Journal of the American Medical Association.* "To attempt to set a goal for community health without understanding the behavior patterns of the groups involved is to be unrealistic," the editorial pointed out.

"Efforts at health education centered in schools or industrial plants may be useful, but only when they send a person back to his family prepared to adjust differences in concepts of the requirements for health, and to be a health organizer in his family. If the person is not so prepared, the cost in tension and frustration can outweigh any advantage gained.

"Public health is not found in the health department but in the mental attitudes, customs, and sets of values of the people. People need to be concerned rather with their community as a whole than with public health. A need to dominate, a wish to monopolize the spotlight to the point of excluding others from participation, and a firm belief in one's own omniscience are attitudes that defeat the purpose of promoting public health.

"No community is perfect with regard to its health, and none is completely negligent of it, but each community's reaction to its health needs is varied and variable. It is less important to know how good the health of a community is than to know why it is at its present level.

"A community's reaction to its own level of health depends on (1) its concept of the meaning of health, (2) its concept of the importance of health in relation to other values, (3) the extent of effective communication between public health personnel and the section of the community they wish to reach, (4) how realistic the health plans are, and (5) the extent of participation of private (as distinct from governmental) health agencies, because the former can work with a freer hand.

"Health is not to be found apart from the general welfare of the individual or the community."

The editorial described an experiment in community health education in Montana, in which community self-study programs were employed with the aid of community groups and individual citizens. The results were a common awareness of community needs, intelligent planning, and community acceptance of a sound program under which health problems were alleviated.

"No one claims that community self-study programs are a panacea for all community ills, but they do cultivate a united community spirit that greatly facilitates the solution of many problems," the editorial concluded.

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Rheumatic Heart Disease Can Occur In Aged Persons

Four cases of rheumatic heart disease in persons between the ages of 62 and 76 years were reported by Dr. James W. Grifone, Cleveland, and Dr. J. Roderick Kitchell, Philadelphia, in a recent issue of the *Journal of the American Medical Association.*

The condition is difficult to diagnose in elderly patients, the doctors stated, because of three factors: (1) the atypical form that the disease may take, (2) the fact that active rheumatic heart disease as a cause of heart failure may be obscured by conditions more commonly met with in this age group, notably high blood pressure, hardening of the arteries, and healed rheumatic valvular disease, and (3) the fact that in certain instances the disease may be entirely silent. The doctors pointed out that the present-day program of prophylaxis has resulted in more and more persons who had rheumatic fever as children living to advanced ages. "Therefore, the problem of the elderly person with rheumatic heart disease and possible reactivation of the rheumatic state will be increasingly important in the future.

"It is probably true that rheumatic fever is never completely healed but can be reactivated in a susceptible person at any age by the same factors responsible for recurrence in a younger person."

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Health Proposals of the Administration

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On the 18th of January, the President sent to the Congress his recommendations in the field of health. These were five in number and were concerned with strengthening the research program of the Public Health Service, changes in the formula for grants-in-aid in the health field, further extension of the Federal-State Rehabilitation Program, and amendments to the Hospital Survey and Construction Act of 1946, to provide for construction of chronic disease units, nursing and convalescent homes, diagnostic or treatment centers, and rehabilitation facilities. He further recommended the establishment of a Federal reinsurance service to "encourage private and non-private health insurance organizations to offer broader health protection to more families." He also emphasized that "the best way for most people to provide themselves with the resources to purchase good medical care is to participate in voluntary health insurance plans." This recognition of the principle of voluntary prepayment of the cost of health care has been most gratifying to all of those who have labored for many years in this field.

The American Medical Association acting through its Board of Trustees approved in principle all but the reinsurance proposal, shortly following the President's message. They felt at that time and until a specific bill covering the subject of reinsurance was submitted to the Congress that any action approving or disapproving Federal reinsurance should be deferred.

Since bills have now been introduced into the Senate or the House of Representatives covering the several aspects of the President's proposals, brief comments will be made in reference to the most important of them and a more detailed analysis of the proposed reinsurance plan will be undertaken.

The purpose of the first recommendation as expressed in Senate Bill 2778 is to amend section 314 of the Public Health Service Act so as to extend and improve public health services and provide for better use of public health service funds. At present specific grants are made for a list of diseases such as venereal disease, tuberculosis, cancer, heart disease and mental disease and for public health services generally. The bill proposes the elimination of these specific grants and the substitution of three types of grants. One of these is for general public health purposes, one for extension and improvement of public health service, and the third for so-called "unique projects." In the last two categories there is no provision for consultation with state health authorities or with an advisory committee. While we approve the purpose of this bill, we see no reason for separation of grants one and two, and we feel that consultation with the state health authorities is an essential part of a well working program. We feel that the section dealing with "unique projects" can be clarified. The Surgeon-General is given complete authority in this field without benefit of consultation with

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either the state health agencies or a national advisory council. This bill provides that type 3 grants may be made to non-governmental and non-profit organizations and agencies. More specific definition should be given as to such non-governmental agencies. In view of the fact that the commission on intergovernmental relations was created by the 83rd Congress, it seems desirable to await a report of this commission before new legislation, not of an emergency nature, providing Federal grants-in-aid to the states be adopted.

H.R. 8149 and S. 2748 have to do with amendments to the Hospital Survey and Construction Act of 1947, and are intended to implement plans for treatment and diagnostic centers, chronic disease hospitals and nursing homes. A clear definition of what constitutes a treatment and diagnostic center should be a part of the bill. The provision in the original Hill-Burton Act whereby a state authority making a survey would determine priority of need, location, and type of facility necessary to develop a well-rounded system in each state should be included in the present bill. We also believe, and have so advised the Congress, that chronic disease and convalescent hospitals should be set up as part of or contiguous to existing hospitals. A chronic case may become acute and may require general hospital care not available in a chronic disease institution. Patients should be easily transferrable, back and forth, between the chronic division and the more active part of a conventional hospital.

The Senate Bill 3114 and its companion bill in the House 6356, the so-called reinsurance bills, have stimulated a great deal of interest and have provoked considerable controversy. These bills propose to establish a federal corporation with a capital stock of twenty-five million dollars for the purpose of reinsuring certain health insurance plans operated by a commercial or non-profit insurance carrier. The first section of the bill provides for a technical and advisory service in the insurance field. The Department of Health, Education and Welfare is authorized to collect data from all sources concerning morbidity and mortality rates and other significant factual information. This section also provides for a study of organizational procedures and structure, and the distribution of technical advice and information without charge to agencies engaged in providing insurance against the cost of health services. A separate appropriation would be set up for this area of activity.

The second section of the bill proposes to establish a Federal Reinsurance Corporation with a twenty-five million dollar operating capital. This corporation would undertake to insure, not companies, but particular plans acceptable to the Secretary and at a fee, fixed by the Secretary. This would probably be on the basis of a percentage of gross premiums collected by the company. An allowance of one-eighth of the total gross premiums would be set up for overhead and operational expenses. Seventy-five per cent of the losses, if any, incurred by a company under a particular contract would be covered by the corporation.

"NO COMPETITION" CLAUSE NOT CLEAR

All responsibility for administration of the act lies in the Secretary of Health, Education, and Welfare. A National Advisory Council consisting of 12 members appointed by the Secretary and with the chairman appointed by the Secretary is provided in the bill. The council is merely an advisory one. The Secretary is authorized to utilize such state agencies authorized to supervise insurance carriers. However, requirements and standards are prescribed by the Secretary. The Secretary, after reviewing any proposed plan, will fix the reinsurance premium rate at a level necessary to secure the objective of the act. These premiums will be fixed separately for each plan. The renewals will be made on an annual basis. The premium rate will be subject to change on the basis of experience in a preceding year. The bill contains a "no competition" provision. It is not entirely clear as to just how this would be administered. It is stated that "if, in the Secretary's judgment, reinsurance by non-governmental agencies for a plan is available on the terms and conditions, and at a premium rate comparable to those offered under the act and to an extent that would be adequate to promote the purpose of the act, such plans would not be insured by the Federal Reinsurance Corporation."

There are a number of other provisions concerning the legal status of the carrier, financial soundness, reports required, and certification by the state insurance department. It is obvious that the Secretary has quite broad powers and has the authority to prescribe such regulations as may be deemed necessary to carry out the purpose of the act. This purpose is to extend prepayment insurance to the geographical areas not fully covered, to classes of individuals not now fully protected and to make the total overall protections more extensive or more adequate.

The law further provides that the Secretary can prescribe the minimum benefit, limitation on exclusion because of preexisting conditions or specific illnesses, the maximum liability, waiting periods, duration, cancelability and renewability. There are numerous other provisions of this type that are within the authority of the Secretary to prescribe.

Before considering this program it might be well first to take a look at the present status of health insurance. Voluntary prepayment insurance against the cost of hospital care began in the middle 1930's.

Fifteen years ago, in 1939, nine million people carried some form of insurance against this hazard. At present ninety-two to ninety-three million people carry such insurance. In the meantime progress has been made in insuring against the cost of surgical and medical care in hospitals. At present, approximately seventy-five million people carry insurance against the cost of surgical treatment in hospitals and thirty-five million against the cost of medical care. All these programs have been and still are growing rapidly. It is recognized that these various policies vary considerably in their completeness of coverage; nevertheless, the insurance idea has spread to a large percentage of the insurable population. On the basis of those that are insurable, approximately 72 per cent of the population is covered. The percentage of coverage in different states varies widely. In the industrialized states and the industrial centers, the coverage runs from 80 to 84 per cent of the total population. In the more rural states the percentage is much lower and may be in the range of 45 to 50 per cent. This is largely due to greater difficulty of applying the group principle to the rural population, and of bringing educational methods to bear.

It must be recognized, however, that a considerable percentage of the people in this country, because of financial factors, age, unemployment, permanent or temporary disability of fairly long standing, are not insurable. Unemployment figures do not give a true picture of insurability since on the average 60 per cent of the unemployed are unemployed for four weeks or less, and approximately 57 per cent of them have unemployment insurance. The group over sixty-five years of age numbers over thirteen million, the temporarily disabled are approximately four and a half million, 60 per cent of whom are disabled for more than 30 days. The public assistance group approximates five and a half million, 47 per cent of whom are among the aged. There remains the low income group who so far have been either unwilling or unable to purchase prepayment protection. The experience of certain areas indicates that about half of this group are able to purchase insurance, but are unable to pay the cost of their illness at the time it occurs. The other half fall into the category of those whose income is so low that they cannot properly be expected to purchase prepayment protection.

PROGRESS MADE IN INSURANCE

The full significance of what has been accomplished already in the insurance field is not shown by a comparison of total hospital and medical costs with the percentage of coverage that now prevails. One of the principal effects of insurance has been a leveling process that takes off the peak of medical expense and fills in the valley by averaging the overall costs.

For example, the average cost for hospital care per person hospitalized is $148. If insurance only accomplished the leveling process so that everyone paid this average figure, there would be relatively little hardship. But insurance does more by paying a substantial proportion of the bill.

In addition, very encouraging progress has been made in the sale of major medical expense insurance or so-called catastrophic illness insurance. These plans are comparatively young, but already more than a million such policies have been written. The extraordinary expansion of prepayment voluntary health insurance during the past 15 years, particularly during the past two to three years, gives us reason to believe that further expansion in the number covered and the extent of coverage will continue. There are approximately eight hundred insurance agencies engaged in selling health insurance in a highly competitive field. Further extensions will continue as rapidly as sound actuarial experience is required, and as more and more people are induced to give the purchase of health insurance its proper place in their budget.

Through the medium of the Federal Reinsurance Corporation the Department of Health, Education, and Welfare proposes to broaden health insurance coverage by reducing exclusions, making benefits more comprehensive, reaching into the area of catastrophic illness, increasing the number of hospital days allowed, eliminating certain age restrictions, covering a portion of the uninsurable and by including in insurance the cost of providing early diagnosis and treatment of chronic disease. These are all admirable objectives. But can they be accomplished under the principles of insurance? One can not insure against death, for death is certain; but one can insure against the unpredictable factor of when death will occur or what will cause it. I could buy very cheaply at my age insurance against death or crippling from poliomyelitis, but insurance against death or disability from a long list of the diseases common in my age group, such as cancer, heart trouble, diabetes, arteriosclerosis, and paralysis, would be extremely expensive. Reinsurance will not make insurance any cheaper. In fact, while it makes it more dependable, it increases the cost, since the premium charge for reinsurance has to be added to the premium paid by the individual policyholder.

Under our present system there has been rapid progress in the direction of covering greater numbers, extending benefits and including a wider range of individuals who present a greater than average risk. This has come about through the general improvement in the health of our people, which is re-

flected in the accumulated actuarial data and by adoption of the principle of coinsurance and the deductible factor.

We have to recognize that there is a large group of medically uninsurable people. While this group is being whittled down and can be whittled down further, there is a hard core that remains. At present it is made up of a major fraction of the more than thirteen million aged persons, the totally disabled, and a portion of the temporarily disabled, the public assistance cases, a considerable number of the unemployed, and the indigent. The individuals in these groups are entitled to and should have access to good medical care. This care should be paid for by direct payment at the time that illness occurs. Those who are unable to pay for their own care are now being paid for by private philanthropy and by local and state governmental agencies. This is being well done in certain areas and poorly done in others. This factor, however, does not militate against the validity of this prinicple. It does mean that every possible effort should be made in every locality and in every state to improve this particular aspect of the medical care program. It is fallacious, however, to assume that any form of insurance can economically cover these groups. It can be done by compulsory national insurance so-called, but that method ceases to be insurance and becomes simply a Federal medical plan supported by taxed funds.

To attempt to insure the non-insurable group would be economically unsound and can only be accomplished by subsidy. Subsidized insurance would certainly impair and perhaps destroy voluntary insurance.

There are a number of grounds for a reasonable fear of the effect of the Federal government's entrance into the area of reinsurance of health insurance plans. I am sure that the proponents of this plan are sincere in their statements that there is no element of subsidy involved. I am not sure that they are wise enough or strong enough to keep it out. In fact, on a small scale, it is already in. The operating expenses of the Federal Reinsurance Corporation will come from general tax funds for a period of five years. It will be in competition with private and non-profit agencies within this same field that pay their own operating costs. There is a larger danger, however, in that once the machinery is set up, there will be a popular demand for a subsidy, through this corporation, for insuring the low income group. Once this occurs, further progress upward on the economic scale of governmental subsidized insurance is a simple matter of lengthening the yardstick by which indigency is measured. The one check upon expansion of the plan is the provision that corporations will pay only 75 per cent of the losses of the plan. This will be a strong deterrent against plans being put forward that do not have a reasonably sound actuarial basis. If this deterrent works, the corporations will probably do little business and cease to be an important factor unless it moves into the field of subsidy.

The power granted the Secretary of Health, Education, and Welfare under this bill is rather extraordinary. An advisory committee and its chairman are appointed by the Secretary. It reports only to the Secretary and is responsible to the Secretary alone. The Secretary has the power to declare, when in his judgment, a private agency is performing a particular insurance function that will further the purposes of the bill. How this fits into the "no competition" statement in the bill is somewhat difficult to understand.

It has long been this nation's policy to leave to the states the supervision and control of insurance. Entrance of the Federal Government into this area may well be viewed with some misgivings. This is particularly true when subsidy becomes a part of the program, since an element of Federal control will surely follow Federal subsidy.

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Differential Diagnosis of Brain Tumors

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• *Brain tumors are often overlooked in differential diagnosis. This omission is attributable largely to the false belief that neoplasms of the brain occur only rarely, to disregard of characteristic diagnostic signs, and to confusion of brain tumor symptomatology with that of other disease processes. The most effective means of insuring early identification of these lesions is to bear the possibility of brain tumor constantly in mind in differential diagnosis.*

ALTHOUGH it has long been recognized that tumors of the brain frequently cause symptoms that treacherously mimic many disease processes in other parts of the body, often the possibility of such a lesion is not considered in the differential diagnosis of disease. Prominent among the reasons for the omission are failure to note the diagnostic signs pointing to brain tumor, misinterpretation of these signs, and adherence to the misconception that tumor of the brain is a medical rarity seldom encountered except by specialists in the treatment of disease of the nervous system. If brain tumor is constantly borne in mind as a differential possibility in systemic disease, the early identification of tumor will be greatly facilitated and the initial step—the most important step—toward the cure of the patient taken.

Tumors of the brain were once regarded as rare lesions. They are not. According to statistics arrived at by surveys of large numbers of cases, they are the most common of all childhood tumors.[1, 3] They are among the three most frequently encountered tumors in females through the age of 19 and in males through the age of 39.[2] Perhaps more important still is the consideration that all tumors within the cranium, no matter how completely removable, can kill by their mere growth. If unrecognized and let alone, every intracranial growth is potentially fatal.

Brain tumors may impose a particular problem in differential diagnosis, for a considerable variety of symptoms may be caused, owing to the diversity of functions of the brain, the cranial nerves and the intracranial glands. The custom of including among the brain tumors all growths of the cranium and its contents adds to this complexity. It is pertinent to review briefly some of the characteristics of these various tumors.

The gliomas are intrinsic tumors of the brain and constitute about one-half of the entire group. In adults these tumors are found principally in the cerebrum and the basal ganglia; in children they occur more frequently in the cerebellum and in the brain stem. They may appear precipitously and have catastrophic effect, as is seen in some glioblastoma multiforme; or, they may develop slowly for years with symptoms so insidious that they involve large areas before their presence becomes apparent. All gliomas are invasive; all tend to recur locally; and all may seed to other parts of the cranial-spinal axis, although none seed outside the skull and spinal canal. As with all malignant tumors, prognosis is better if the lesion is recognized early and treated radically.

Tumors of the meninges, the meningiomas, constitute something over 15 per cent of all brain tumors. These lesions arise primarily in the coverings of the brain, either above or below the tentorium, and more commonly, but not invariably, near the large dural venous channels. Usually they do not actively invade the brain, but by pressure and by fusion of nodular projections they may erode or damage the cortex. They are often vascular and frequently multiple. In the cranium, they have a strong tendency to recur locally. They occasionally erode the skull and rarely may invade extracranial tissues.

Of the tumors of the cranial nerves, the most important is that arising from the sheath of the 8th (auditory) nerve. The histologic pattern is usually that of a perineurial fibroblastoma, (variously designated as neurinoma, neuroma, 8th nerve or cerebellopontine angle tumor). This growth particularly affects auditory and vestibular function and also commonly impairs movement and sensation of the face or throat, as well as the cerebellar function of coordination. In the late stages it may involve the long fiber tracts of the brain stem. When recognized early, tumors of this kind can be completely removed. If they are in advanced stage, eradication, if possible, is associated with considerable morbidity because of involvement of adjacent cranial nerves, cerebellum and brain stem.

The pituitary gland is particularly subject to neoplastic change, the pineal less so. Pituitary tumors may endanger vision by compression of the optic

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nerves, producing first the characteristic bitemporal hemianopia and later potentially complete blindness. These lesions can also produce associated endocrine dysfunction by compression of the so-called floor of the third ventricle, and they may exert pressure on the brain stem posteriorly. The symptoms of pinealoma usually appear late and result from invasion of adjacent centers and from blockage of normal flow of cerebrospinal fluid.

Cysts, growths from cell rests, tumors of blood vessels, neoplasms of the skull invading the cranium, and metastatic growths constitute the remainder of the lesions referred to as brain tumors. The symptoms they cause depend upon their location and hence the area of the brain or the cranial nerves that they may affect.

From the clinical standpoint, the symptoms and signs which should make one think of brain tumor are those of any single progressive lesion of the brain regardless of speed of progress or of apparent location. Headache is the most frequent initial complaint of a patient with brain tumor. Unfortunately, it is usually a late sign, for it is often an evidence of increasing intracranial pressure related either to size of the growth or to the block of cerebrospinal fluid pathways. Convulsions, reflecting irritation of the cerebral cortex, are usually a relatively early sign of brain tumor and frequently the initial complaint of adult patients. The appearance of convulsions in any adult is invariably cause for alarm, for it may indicate the presence of neoplasm. It should not be forgotten that sensory as well as motor functions are properties of the cerebral cortex; and visual, auditory, olfactory, gustatory and somatosensory hallucinations may be as important in their implications as a Jacksonian or a grand mal seizure.

Although a frank psychopathic state is rare in patients with brain tumor, personality change may be an early manifestation, particularly of tumor in the temporal lobe, the corpus callosum, or the frontal lobe.

Ataxia, usually related to irritation of the deeper nuclei of the cerebellum, may be a relatively early sign of cerebellar tumor. Focal paralysis of cerebral cortical function suggests a later phase of tumor life and may or may not be preceded by a period of irritation. Advance of the lesion along the motor cortex or its fiber projection paths may be reflected in progressive motor weakness, diminishing deep sensation, or increasing impairment of the visual field. Other sensory functions are affected by neoplasms directly involving the peripheral nerves or pathways, but these functions are not lost at the cortical level.

Late signs of brain tumor include nausea and vomiting, drowsiness, papilledema, with loss of vision at a very late stage, and, terminally, bradycardia and altered blood pressure.

As was previously mentioned, these diagnostic clues are often incorrectly evaluated. Selected on a composite basis from the experience of several authors, the erroneous diagnoses most commonly encountered at medical centers where brain tumors are frequently seen are:

Neurosis-Psychoneurosis	Multiple sclerosis
Epilepsy	Encephalitis
Cerebral arteriosclerosis	Poliomyelitis
Cerebral hemorrhage	Meningitis
Sinusitis	Syphilis
Intestinal flu	Menopause

All these diagnostic errors reflect misinterpretation of signs and symptoms which, if studied thoroughly or extensively enough, should have led to correct diagnosis. The principal reasons for the errors were: (1) failure to consider brain tumor as a diagnostic possibility; (2) inadequate history and examination; (3) improper clinical evaluation; (4) disregard of significant signs, such as headache or convulsions; and (5) overemphasis on misleading signs, such as head injury, syphilis and ingestion of alcohol.

To improve differential diagnosis and reduce the number of errors, then, it would seem that the following points should be heeded:

In the evaluation of a patient with symptoms referable to the nervous system, it must be borne in mind that tumor of the brain is not a rare disease.

Invariably a survey of the nervous system should be included in a standard physical examination. Traditionally the nervous system has been regarded as a mysterious part of the body. This manner of thinking should be abandoned.

With the Snellen chart, visual acuity can be quickly estimated. The visual fields may be roughly outlined by the moving of a finger or a small object into the patient's visual field from the side, and having him say when he sees it. Each eye should be tested separately. Every clinician should know the appearance of an edematous or an atrophic optic disc and should recognize hemorrhage in the retina when it is present.

Examination of the face for sensation and intrinsic movements, as well as observation of sensation and movement of the throat, mouth and tongue should be carried out. Hearing by air and bone conduction can be estimated by use of the tuning fork and the whispered spoken voice, testing one ear at a time. Observing movements of the shoulders and of the tongue completes this quick survey of the cranial nerves. The head should always be auscultated, for bruits are a valuable clue to intracranial disease.

Motor power in all joints of the upper and lower extremities should be tested and evaluated. The reflexes at the elbow, the wrist, the knee and the ankle, as well as the response to plantar stimulation (Babinski, etc.) are readily checked, as are the abdominal and cremasteric skin reactions. The evaluation of response to pin-prick, to sweep with a wisp of cotton, to vibration, to joint position, and to objects held in the hand or to figures written on the skin should be included in a thorough physical examination. Coordination and the ability to do rapidly alternating movements should always be tested even in the most hurried survey.

If the symptoms and signs observed in the physical survey are still inconclusive, laboratory tests may be necessary. Cerebrospinal fluid study includes an evaluation of spinal fluid pressure, a cell count and chemical study. Spinal fluid pressure in patients with brain tumor is usually but not always above the accepted normal of 180 to 200 mm. of water. Seeding of tumor into the subarachnoid space or irritation of the meninges by tumor may cause an increase in the number of cells in the fluid, and there may be an increase in the protein content without change in the chlorides or sugar.

Spinal fluid pressure should be measured carefully. Jugular compression (Queckenstedt's test) should be avoided if a tumor in the cranium is suspected. If the pressure is obviously elevated, fluid should not be removed unless preparations are in order to proceed with operation immediately should collapse due to herniation of the cerebellar tonsils or of the cerebrum occur.

Electroencephalography occasionally is valuable in localizing focal cortical disturbance. Much depends on the interpretation of the tracing, however.

Plain x-ray films of the skull will occasionally demonstrate a space-occupying lesion. The pineal body, frequently calcified if tumor is present, may be shifted from its normal midline position. There may be areas of calcification within the cranium or areas of erosion within the skull. The sella turcica may be enlarged by intrasellar tumors. When present, these clues are always of great value. More often than not, though, a roentgen film will show no conclusive diagnostic signs even when tumor is present.

Special studies such as pneumoencephalograms, ventriculograms and arteriograms may give additional information of great value. Pneumoencephalograms and ventriculograms should not be undertaken unless all preparations have been made to proceed immediately with the removal of the tumor. If tumor is present, replacement of fluid with oxygen or air may in itself be highly dangerous unless facilities are at hand for coping with the neoplastic lesion.

Cerebral angiography sometimes gives positive evidence of tumor when all other methods of identification have failed. In angioencephalography, radiopaque material is injected into the carotid arteries and occasionally into the vertebral arteries. X-ray films taken in quick succession during and in the few seconds following the injection will often permit diagnosis by revealing distortions or abnormalities of the vascular pattern caused by brain tumor.

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Review and Evaluation of New Drugs

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• *The uses and actions of a few of the large number of new drugs that have been introduced to the medical profession in recent years are reviewed herein. The greatest number of drugs introduced are those affecting the autonomic nervous system. Their usefulness often depends upon the individual patient's own response. A knowledge of the type of drug he is administering and a comparison with others that are related better enables a physician to appraise the results of his treatment.*

NEW DRUGS are introduced to the public after months of study which includes bio-assays, chemical analysis, purity tests, animal experimentation and clinical trial. Usually, but not always, the manufacturer submits his product to the Council on Pharmacy and Chemistry of the American Medical Association for approval. Approval is granted by a vote of the members of the Council on Pharmacy and Chemistry if in their judgment the claims made for the drug are valid and if the Council's rules governing the acceptance of the product itself are complied with. These rules can be found in the first 40 pages of *New and Non-Official Remedies* (N.N.R.) published annually by the A.M.A. With these rules as a guide it is often possible for the physician himself to form an early opinion about a drug that has not yet had Council approval. With reliable drug houses anxious to have the A.M.A. seal of approval of their products, and with the further protection of the federal government's pure food and drug law, one may have at least some assurance of the safety of drugs and of protection against extravagant claims of their actions and uses. To rely entirely on promotional literature, however, is not a scientific way of evaluating a product and the physician's judgment and personal experience is, in the final analysis, the best.

Often very helpful in evaluating a new drug is to compare its structural formula (not its name) with that of older related drugs of similar action which may be found in N.N.R.

Over the past two or more years many drugs have been introduced as having some new action or advantage over previously existing agents. A brief discussion of some of them follows.

Fumadil in the Treatment of Amebiasis

Fumadil or Fumagillin (Abbott) is an antimicrobial agent that inhibits Endameba histolytica both in vitro and in vivo. It is effective when given orally in the treatment of acute and chronic intestinal amebiasis. It has not been proven useful in the treatment of amebic abscess of the liver or other organs. It is a direct-acting amebicide and produces no systemic side effects at therapeutically effective dosage. It exhibits no antibacterial nor antifungal activity and exerts no effect on the normal intestinal flora. It is supplied in 10 mg. capsules for oral administration and the average adult dose is 30 to 60 mg. in divided doses three times a day for 10 to 14 days. Although no toxic side effects on the parenchymatous organs have been observed, until the results of wider usage have been reported, the possible occurrence of dangerous side effects should not be overlooked. On the basis of present evidence, Fumadil can be recommended for the treatment of acute and chronic amebic infections of the bowel. There is no indication at present that it has any advantages over the use of the other known agents, Milibis, diodoquin or Vioform, or even Terramycin.

Antihistamine Agents

Most of the histamine-antagonizing agents are in the ethylenediamine series and the new Clistine maleate of McNeil is no exception. Its formula is much like that of Benadryl. Its action should be mild and nontoxic and may prove effective at times where other such agents are not, depending on individual patient response. The presence of a pyridine ring in its structure may make the drug a little more toxic. On the other hand it should not cause the drowsiness that Benadryl sometimes does.

Skeletal Muscle Relaxants

Skeletal muscle relaxants are primarily of two types—those that act as spinal cord depressants and those that act on the motor end-plate of the nerve and block the transmission of nerve impulses to the muscle. Mephenesin or myonesin is of the first type. It is said to act on the internuncial neurons of the spinal cord and relieve disorders of the muscles and tendons associated with spasm and pain. It is quickly destroyed in the body and has a low toxicity. It is supplied in 0.5 gm. tablets, and 1 gm. or more may be given every four hours three to five times daily. It often gives relief from pain due to muscle spasm. It must be given in large enough doses and if it is

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not helpful in three days there is no point in continuing with it. Other names for mephenesin are Tolserol, Oranixon, Sinan, Arosyl, Dioloxol, Myoxine, Bissephen, and Toloxyn—all registered by different drug houses for the same substances.

Curare and the synthetic curare-like drugs are muscle relaxants of the second type. The action and uses of Intocostrin, d-tubocurarine, Metubine iodine, all derived from the curare plant, are well known. The synthetic curare-like drugs are Mytolon, Flaxedil, succinylcholine, and Syncurine. They act as myoneural junction depressants and, like curare and its derivatives, are useful during anesthesia, in electric shock therapy and for relaxing spastic muscles. Their use for relaxing muscles in the treatment of tetanus, multiple sclerosis, amyotrophic lateral sclerosis and spastic paraplegia is under investigation in some clinics. It is interesting to observe that curare and curare-like drugs are quaternary ammonium compounds and that their actions are similar because of a ten-carbon chain interposed between two ammonium salts in each instance.

The synthetic compounds have many advantages over the curare derivatives: They have no depressant effects on blood pressure, do not cause bronchospasm, are more quickly eliminated in the urine and therefore, shorter acting and more easily controlled, exhibit no action on autonomic ganglia, and do not affect the intestinal tract tone nor motility.

Because of their good muscle-relaxing qualities and minimum of dangerous side-actions, the synthetic curare-like drugs should rapidly gain favor in use were it not for the fact that their action is fleeting and not so well sustained as the curare derivatives. Their practical use in the treatment of spastic disorders by means of intramuscular depot injections can be hoped for. They are given intravenously. As the effect may vary considerably between patients, they should be administered in carefully adjusted doses.

It must be kept in mind, as was mentioned in a recent editorial in the *Journal of the American Medical Association*, that with the benefits of complete muscle relaxation obtained by this means goes an added risk in the handling of patients in anesthesia in spite of the utmost care in administration of the drug or the use of antidotes. The antidote for the curare derivatives and Flaxedil has been Neostigmine. Neostigmine is not effective as an antidote to the other synthetic curare-like derivatives. Edriphonium, or Tensilon, is considered superior to Neostigmine because of its brief peripheral parasympathomimetic action and fewer side actions. It can be used only as an antidote and not as a prophylactic. The dose is 10 to 30 mg. intravenously; 5 mg. or 0.5 cc. intravenously may be enough to terminate the spasms of electric shock therapy.

Drugs Used for Hypertension

Today rauwolfia serpentina, hydralazine or Apresoline, and veratrum viride and the purified form, proveratrine, are being widely used in the treatment of hypertension. Their effectiveness in relieving high blood pressure may vary with each patient. A combined use of rauwolfia and hydralazine has seemed to give satisfactory response in some cases. As more and more experience in the use of these agents is accumulated it appears that these particular drugs act largely as placebos. It has to be admitted the pharmacological effect is not as much as was hoped for. Moderation of all activities of the patient is still the best therapy for essential hypertension no matter how high the blood pressure. Rauwolfia is useful for its tranquilizing effect on the patient, and it may be of some advantage to use it rather than phenobarbital which is more of a hypnotic, although cheaper.

The real problem and cause for alarm is malignant hypertension. Here the ganglionic blocking agent, hexamethonium, is best used for its "medical sympathectomy" effect. It cannot be given orally without considerable hazard because of the difficulty in judging its absorption and elimination; it must be given parenterally and with the patient in the hospital. Serious side effects such as severe postural hypotension and obstipation often have to be dealt with. If the progress of malignant hypertension is thus arrested, this may lead to continued self-administration of the hexamethonium or to surgical sympathectomy. The search for better drugs of this type continues.

Autonomic Drugs

Of considerable interest nowadays are the various ganglionic blocking agents (of which hexamethonium is one), adrenolytic and sympatholitic agents, and antispasmodics. Such drugs are sold by so many pharmaceutical houses that much uncertainty as to their purpose and effectiveness may exist unless attention is given to their formula and action.

Priscoline (benzazoline) is a sympathetic blocking agent exhibiting, therefore, adrenolytic and sympatholitic effects and causing vasodilation. It is useful in peripheral vascular diseases.

Ilidar, another sympathetic blocking agent recommended for peripheral vasodilator effect, has few side actions, low toxicity and acts like Priscoline.

Pendiomide is a ganglionic blocking agent which inhibits the transmission of impulses in the peripheral autonomic ganglia and temporarily lowers blood pressure because of a change in the resistance of the peripheral circulation. By use of this drug a technique of controlled hypotension has been developed. This is convenient for surgeons, for it reduces

bleeding in operations where large loss of blood is likely. It resembles hexamethonium in its action.

As a test substance for the diagnosis of pheochromocytoma, the sympathetic blocking agent Dibenamine has proven to be too inaccurate and too dangerous for practical use.

A new Dibenamine derivative, Dibenzyline, produces a blockade of all sympathetic pressor reflexes and has been effectively used to lower blood pressure. Although supposedly more effective, it has the same hazards and toxic effects as the other hypotensive agents.

Another sympathetic blocking agent, piperoxan (Benodaine) is used intravenously as a test substance for pheochromocytoma; but its action is fleeting and it has been largely supplanted by still another sympathetic blocking agent, phentolamine (Regetine), as an agent to test for pheochromocytoma. Phentolamine effectively blocks the action of epinephrin for longer periods than does piperoxan.

Drugs Related to Atropine

Today there are many antispasmodics that are acetylcholine antagonists or parasympatholitic in their action and are related to atropine, structurally. The newer ones are recommended for use in relieving spasm of the alimentary tract and reducing the amount of acid secretion. Their principal effectiveness, however, appears to be antispasmodic action. They are Dibutoline, Antrenyl, Mesopin, Novatrin, Prantal, Pamine, Banthine, Tricoloid, and Elorin. The choice of one over the other seems to depend entirely on the individual patient's response to them.

Synthetic Cation Exchange Resins

Synthetic cation exchange resins have now had considerable trial in the treatment of congestive heart failure, and in the edema of cirrhosis and nephrosis in which a low sodium intake is desirable.

Physicians have been reluctant to prescribe carboxylic cation exchange resins because they cause gastric irritation and because of large bulky doses. The new sulfonic exchange resin, Katonium, offers higher efficiency (it is 30 per cent more effective in its uptake of sodium), greater palatability and better tolerance. With the use of a cation exchange resin of this kind less frequent mercurial injections are required and the need for mercurials may be entirely eliminated. Prolonged use is costly, but often after a patient has remained compensated and free of signs of passive congestion for awhile the drugs used for promoting diuresis become unnecessary and may be discontinued.

Antihemophilic Human Plasma

There is now an antihemophilic human plasma for use intravenously in the treatment of hemophilia. Antihemophilic globulin (Fraction I) was ineffective, experience having shown that plasma cannot be fractionated satisfactorily to recover this fraction on a commercial basis. The new lyophilizing method of preparation of this human antihemophilic plasma insures preservation of the antihemophilic factor. The dose is 50 cc. with an equal quantity of diluent.

Synthetic Anticoagulants

A new synthetic anticoagulant called phenindione has been introduced and it is sold as Hedulin and Danilone. It is similar in action to dicoumarin and its derivatives, but chemically unrelated. It is effective orally for lowering of the blood concentration of prothrombin in the management of conditions complicated by intravenous clotting. It acts presumably on the liver in the same manner as the coumarin anticoagulants. It has the same contraindications and hazards of administration. The difference in action between the coumarin anticoagulants and phenindione is slight. It is claimed that therapeutic levels are obtained a little more promptly, that cumulative effects have not been observed and the prothrombin level returns to normal sooner. Comparison with the actions of the others as reported in N.N.R., however, shows almost a uniformity in action of all the synthetic anticoagulants. It would seem, then, that if a physician is familiar with one special anticoagulant—dicoumarin, for example—there is not much need for him to change to phenindione.

Synthetic Estrogens

Chlorotrianisene or Tace is a new nonsteroid or synthetic estrogen that has, in general, the actions and uses of other estrogens, but that possesses certain peculiarities. The potency of its estrogenic activity seems to be enhanced by some metabolic process in the body. When given over long periods of time, it is stored in the body fat and released slowly. Hence its action persists after administration of it is discontinued. This appears to be an advantage in the treatment of menopausal symptoms where tapering off of estrogen dosage may be helpful. Chlorotrianisene is also claimed to be superior to stilbesterol in the suppression of lactation.

Antimalarial Therapy

Two drugs are now recommended for use in the treatment of malaria. These are chloraquine, or Aralen and Primaquine. Chloraquine is useful against the disease at the stage when the organisms are circulating in the blood. Giving it in doses of 0.5 gm. once a week is the present best method of suppressing malaria in an endemic area. Primaquine acts against the tissue stages of malaria and 15 mg. daily for 14 days is the best curative treatment. Primaquine is known to prevent relapses in falciform and vivax malaria in from 70 to 90 per cent of the cases.

490 Post Street.

Advanced Peripheral Arteriosclerosis

A Physiological Approach to Management

LAWRENCE N. ATLAS, M.D., Los Angeles

• *When peripheral arteriosclerosis progresses to the stage where blood flow through both primary and collateral circulations is impaired seriously, arteriolar relaxants, physical therapeutic, pharmacological and surgical, may aggravate the nutritional deficit. Although tissue viability is maintained precariously, limited activity may be tolerated unless the delicate balance between blood supply and metabolic activity is upset by the vicious circle of rest pain and dependent edema. This vicious circle constitutes an immediate threat to the structural integrity of the limb. Rest pain must be controlled if the delicate balance between blood supply and metabolic activity is to be restored and the threat of amputation mitigated. Intravenous injections of procaine may be of value.*

ADVANCED ARTERIOSCLEROSIS of the lower extremity may be defined as that stage of the disease wherein the flow of blood is irreversibly reduced to a volume barely sufficient to maintain precariously tissue viability. The collateral vascular reserve is seriously impaired and the chronic nutritional deficit is manifested by cyanotic rubor of the skin of the foot when dependent and by cadaveric pallor when the leg is elevated and the capillary bed emptied of oxygen-depleted blood. These cutaneous manifestations of a chronic nutritional deficit are the result of capillary stasis. The differential between arteriolar and venular pressures is not sufficient to promote active capillary flow.

Although tissue viability is maintained precariously, a limited amount of relatively comfortable activity may be tolerated for many years, provided the patient remains within his physiological limits, provided he or she takes meticulous care of the ischemic foot, and provided the nutritional deficit is not aggravated by ill-advised therapy.

REACTION TO LOCAL HEAT

Persons with peripheral arteriosclerosis tolerate comfortably external heat up to body temperature when collateral circulation to the distal portion of the arteriosclerotic limb is functioning. Such is not the case with those who have what has been defined as advanced peripheral arteriosclerosis. The latter frequently volunteer the information that even tepid foot baths are uncomfortable. If the ischemic foot is immersed in water with a measured temperature of 100° F., pain becomes unbearable and cyanotic rubor is intensified. The regional heat expedites metabolic activity and the deoxygenation of blood without increasing the flow of blood, and tissue nutrition becomes still further impaired.

REACTION TO VASODILATING DRUGS

The various tissue complexes of the body compete with each other for a relatively fixed quantity of circulating blood. When the nutritional needs for blood in a particular tissue complex become urgent, a metabolically induced diminution in the arteriolar resistance to flow of blood occurs and the ensuing increased flow satisfies the metabolic requirements of that particular tissue complex. Blood pressure is maintained by reflex vasoconstriction with diminished blood flow to tissues elsewhere. DeBakey and Ochsner[1] termed this borrowing-lending phenomenon *hemometakinesia;* and they showed that the same principle applies to vasodilating drugs. Since the action of vasodilating drugs is generalized, an arteriosclerotic limb may be unable to compete with other tissues to which blood flow is not obstructed.[5] The following clinical observations demonstrate that even when a vasodilating drug is injected directly into the major artery supplying an ischemic limb, the vasodilator rapidly may enter the general circulation and regional tissue nutrition can become still further impaired.

REPORT OF A CASE

A diabetic man 60 years of age, who previously had had amputation at the left thigh because of arteriosclerotic gangrene, complained of limitation of activity owing to intermittent claudication of the remaining limb, and also of pain, coldness and numb-

From the Department of Surgery, University of Southern California; and from the Peripheral Vascular Clinic of the Los Angeles County General Hospital.

ness of the foot. He did not have pain while at rest and was moderately comfortable if he did not exercise beyond tolerance.

There was striking dependent rubor of the foot, and pallor occurred on elevation. The ruborous foot was atrophic. Pulsation could be felt in the femoral artery but not in the popliteal, posterior tibial or dorsalis pedis arteries. An oscillometer registered no pulsation distal to the knee.

The functional status of the collateral vascular reserve was investigated by injecting Priscoline into the femoral artery. Digital skin temperatures of the right hand and foot were stabilized by exposing the body for one hour to a room temperature of 24.6° C. At the end of that period, the skin temperatures of the right thumb and great toe were 28.2 and 27.6° C., respectively. Priscoline, 25.0 mg., was injected into the femoral artery and cutaneous flushing of the hand occurred quickly but the rubor of the foot became intensified. Within a few minutes the skin temperature of the thumb began to rise while that of the great toe began to fall. This divergence reached its maximum within 15 minutes at 29.6° C. and 26.4° C. for the thumb and toe, respectively, and persisted for an hour following injection (see Chart 1).

MAN, AGED 66. ADVANCED ARTERIOSCLEROSIS RIGHT LEG. AMPUTATION LEFT LEG. DIABETES.

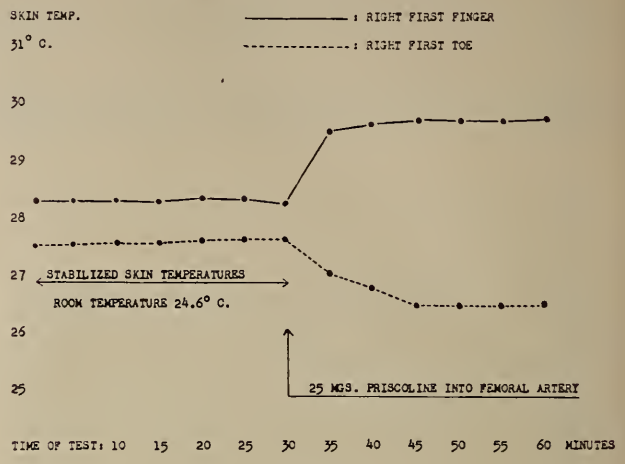

CHART 1

REACTION TO SYMPATHETIC DENERVATION

Throughout the hands and feet are hundreds of direct arteriovenous communications. They are situated in the reticular stratum of the cutis just proximal to the cutaneous capillary bed; they are supplied abundantly with sympathetic vasoconstrictor nerves; and they are part of the thermoregulatory mechanism. Popoff[6] had speculated on the possibility, and Harpuder and Stein[4] subsequently offered experimental evidence that in peripheral vascular disease these arteriovenous communications can shunt directly a significant quantity of arterial blood into the venous side of the circulation. It is not unreasonable to assume that in advanced arteriosclerosis, where tissue viability is maintained precariously by a "seepage" of blood into the foot, surgically induced relaxation of these arteriovenous shunts could have serious consequences. Lumbar sympathectomy would be followed by no significantly increased peripheral blood flow; the small fixed quantity of blood entering the foot would by-pass the capillaries where it was so urgently needed; and tissue nutrition would become still further impaired.

In 1942 the author[1] reported a group of three cases of what has been defined as advanced peripheral arteriosclerosis. In each, lumbar sympathectomy had been performed in an attempt to relieve what had been considered to be a causalgic component of intractable foot pain. Operation was followed by an odd phenomenon. Within one to two weeks following sympathetic denervation, pain intensified and irregularly distributed patches of gangrenous necrosis and ulceration involving the toes and various portions of the foot and lower leg subsequently appeared and slowly progressed so that thigh amputation ultimately was required in all cases. Since the publication of that report, the author has observed six additional instances of this unique kind of post-sympathectomy necrosis; and Freeman, Leeds and Gardner[3] have reported similar cases.

Within recent years, the term *paradoxical gangrene* has appeared in the literature as a descriptive appellation of this phenomenon. The term is confusing and misleading. It suggests erroneously that lumbar sympathectomy may increase the flow of blood to a foot which then, for some mysterious reason, becomes gangrenous. The author has observed this unique kind of tissue necrosis as a specific complication of lumbar sympathectomy only in cases of what has been defined as advanced peripheral arteriosclerosis—in which distal flow of blood could not and did not increase postoperatively. When a well vascularized foot becomes gangrenous following sympathetic denervation, the complication invariably is precipitated by acute postoperative thrombosis of a major vessel, an untoward situation which may complicate any surgical procedure when arteries are sclerotic.

REST PAIN AND EDEMA—THE VICIOUS CIRCLE

Pain associated with recumbency is a distressing complication of advanced peripheral arteriosclerosis, and is of grave portent. The patient gets partial relief by sleeping sitting up with the ischemic foot dependent. As a result of the dependent position the foot becomes edematous, circulation becomes still further impaired, and pain becomes increasingly severe and intractable. This vicious circle frequently terminates in necrotic ulceration, cellulitis and amputation. Paradoxically, only by recumbency can the

circle be broken. The edema must be eliminated and the metabolic activity of the ischemic tissue reduced to a minimum if ulceration is to heal, infection be controlled and the limb enabled to survive. The therapeutic problem, therefore, becomes one of alleviating the pain associated with recumbency.

Narcotics do not suffice. They give only temporary and partial relief and are tolerated poorly by elderly persons. The author has had encouraging success with procaine administered intravenously. An infusion of 1 gm. of procaine in 500 cc. of either normal saline solution of 5 per cent aqueous glucose solution frequently alleviates rest pain with no supplemental sedation. Procaine is not depressing as are narcotics, and it is not a peripheral vasodilator. Procaine has no peripheral sympathetic inhibitory activity when administered intravenously.

REPORT OF A CASE

The patient, a 62-year-old man, had the usual symptoms and signs of peripheral arteriosclerosis. Skin temperature studies were performed to determine the advisability of lumbar sympathectomy. After one hour of exposure in a constant temperature room at 21.5° C., the skin temperature of the left first toe was 22.6° C. Procaine, 100 mg., was injected intraspinally through the third lumbar interspace. Within 45 minutes the skin temperature of the great toe rose to a vasodilatation level of 31° C. (see Chart 2).

The spinal anesthetic was followed by persistent headache. Intravenous infusion of 500 cc. of a 0.2 per cent procaine in 5 per cent aqueous glucose solution was carried out over a period of two hours. The infusion relieved the postspinal headache. Successive dermatherm readings were taken during the procaine infusion (Chart 3). At no time was a rise in skin temperature of the left foot observed.

The following case report illustrates the physiological approach to the management of a case of advanced peripheral arteriosclerosis complicated by digital ulceration and the vicious circle of intractable rest pain and dependent edema.

A woman 76 years of age was observed in consultation in October, 1952. In August of that year pain had developed in the fourth toe of the right foot. Since then the toe had become ulcerated and increasingly painful. During the previous month severe nocturnal rest pain had appeared. Fitful sleep and partial relief of pain was obtained only by sitting with the painful foot dependent. Since the onset of rest pain, the foot had become swollen and red. Local heat made the pain worse. Lumbar sympathectomy had been advised. However, the patient was reluctant to have the operation because, she said, a sister who had had the same kind of disease of the foot had had lumbar sympathectomy and the foot became gangrenous, necessitating thigh amputation.

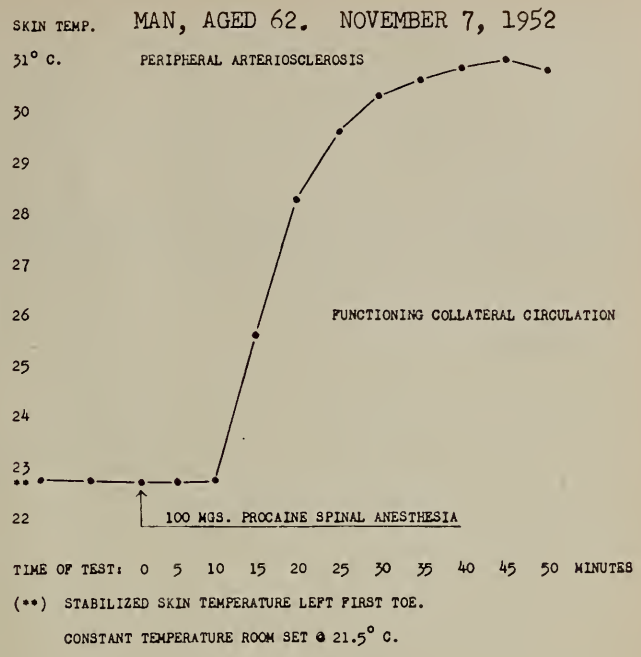

CHART 2

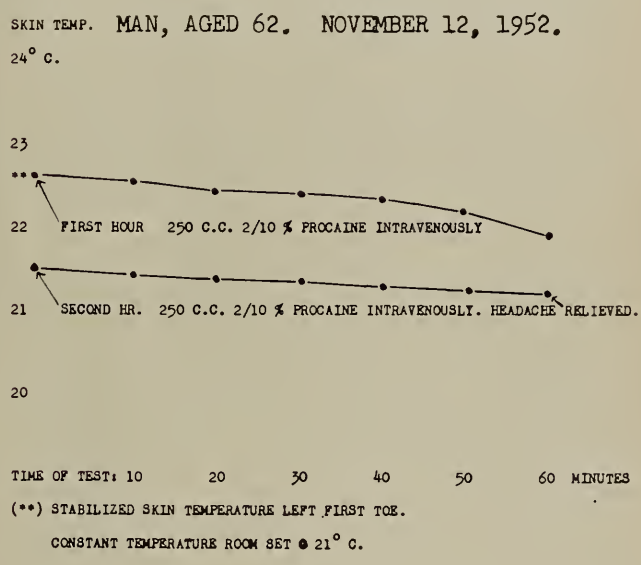

CHART 3

Upon examination the patient was observed to be highly intelligent, emotionally stable, and in obvious distress. She was not diabetic. The right foot was edematous and palpably cold. There was pronounced dependent rubor which faded to a waxy pallor when the foot was elevated. Pulsation could not be felt in the dorsalis pedis, posterior tibial or popliteal arteries. There was an aneurysmal dilatation of the common femoral artery which pulsated vigorously. An oscillometer registered no pulsation distal to the knee. There was an indolent, exquisitely sensitive, superficial ulcer involving the distal phalanx of the fourth toe.

The patient was hospitalized. No pathogenic organisms grew on culture of material from the ulcer. Priscoline, 25.0 mg., was injected into the femoral artery. Cutaneous flushing of the thigh followed

the injection; but the foot became very pale, and pain was intensified for a period of 24 hours. Forty-eight hours after admission a similar intraarterial injection of Priscoline evoked the same reaction.

During the ensuing two weeks the patient received daily in the late afternoon an infusion of 1.0 gm. of procaine in 500 cc. of 5 per cent aqueous glucose solution at the rate of 4 cc. per minute. Rest pain was controlled with no supplemental sedation; and edema of the foot rapidly disappeared. It was possible to discharge the patient at the end of two weeks of hospitalization.

For a period of two months she remained in bed at home. Pain did not recur and the digital ulcer healed. Thereafter the patient was ambulatory and remained comfortable provided she did not exceed the physiological limits of activity imposed by the impairment of circulatory apparatus.

2010 Wilshire Boulevard.

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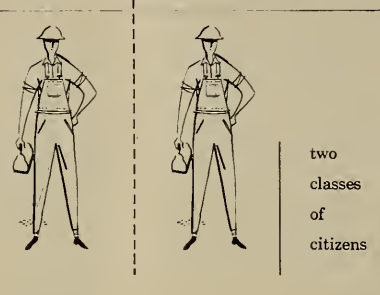
In Viewing the VA Medical Program . . .

effects of
present veterans medical legislation



It is the belief of the medical profession that it is unsound to authorize free lifetime medical care for veterans who suffered no mishap in uniform, while other citizens with no military background must pay their own way. Although the two men above are identical, they represent "two classes of citizens"—the veteran with no service-connected disability who is granted medical care at federal expense, and the non-veteran who must personally assume responsibility for his medical care.

Diverticulitis of the Colon

Surgical Treatment

ROBERT A. SCARBOROUGH, M.D., San Francisco

• *Appropriate surgical treatment of diverticulitis of the colon can result in a highly satisfactory proportion of permanent cures, with an operative mortality of 2 to 5 per cent.*

Colostomy is a valuable emergency procedure for the control of severe infection or the relief of obstruction but is not a satisfactory definitive treatment for the cure of diverticulitis. Definitive surgical treatment requires resection of the involved segment of colon.

Three indications for surgical intervention in "uncomplicated" diverticulitis are: (1) continued or repeated attacks, (2) persistent deformity as seen by x-ray examination, and (3) persistent blood in the stools.

Although a three-stage operation is usually considered a safer procedure, one-stage resections may be safely and satisfactorily employed in many instances.

FOR MANY YEARS conservatism has been the dominant principle of surgical approach to the problem of diverticulitis of the colon. In 1933, the attitude of the times was expressed in an article by Brown[2] who said, "There should be a determined effort to avoid operations." In 1941, Laufman[4] stated, "Because of high mortality and high incidence of failure, surgery should be avoided whenever possible."

The most commonly employed surgical procedure has been proximal colostomy, with the hope that time and nature would repair the damage so that ultimately the artificial anus might be closed. In the majority of patients such treatment has proven to be only a temporizing measure, with diverticulitis and its complications recurring after closure of the abdominal opening. Moreover, colostomy alone, in from 8 to 25 per cent[6, 8] of cases, has not resulted in symptomatic relief, owing to persistent activity of infection.

Such unhappy experiences, combined with recollections of the technical difficulties and significant mortality of radical resection in the preantibiotic era, have been responsible for a persistent attitude of conservatism on the part of many surgeons, in the treatment of a disease which itself carries a high morbidity and significant mortality.

In the past decade, and particularly in the past three years, a profound change in the attitude toward surgical approach to the problems of diverticulitis has become evident. Numerous convincing reports have shown that a radical definitive attack, by resection of the diseased segment of colon, can result in a highly satisfactory proportion of permanent cures, with an operative mortality of 2 to 5 per cent.

Diverticulosis ranks high among the degenerative diseases that afflict a steadily increasing older population. Diverticula cause no symptoms and require no specific treatment, regardless of their number, size, or distribution. It has been estimated[8] that clinical diverticulitis develops in about one-fifth of persons with diverticulosis and that operation is indicated in one-fifth of those with diverticulitis.

In many patients a presumptive diagnosis of diverticulitis is made when there are symptoms of a moderate disturbance of bowel habits with inconstant abdominal discomfort and tenderness, and x-ray examination with barium enema reveals no abnormality other than the presence of diverticula. These symptoms are identical with those of an irritable colon, and justification of the diagnosis of diverticulitis is dubious. In any event, there is quite definitely no indication for surgical intervention in such a situation.

A positive diagnosis of diverticulitis is justified only when one or more signs of inflammatory disease are evident—fever, leukocytosis, a palpable tender mass, or evidence of inflammatory deformity of a segment of the colon by x-ray examination with barium enema.

A single acute attack of diverticulitis, followed by complete subsidence of the signs and symptoms of disease, is not an indication for operation. When operation is indicated, it may be urgently necessary in some cases and in others an elective procedure.

INDICATIONS FOR EMERGENCY OPERATION

1. *Acute Perforation with Generalized Peritonitis.*

This is an infrequent surgical emergency, occurring in less than 2 per cent of cases of diverticulitis.

Read before the Southern California Chapter of the American College of Surgeons, Santa Barbara, February 6, 1954.

From the Department of Surgery, Stanford University School of Medicine, San Francisco.

Of ten thousand adults, five hundred will have diverticulosis, fifty will have diverticulitis, and one will have acute perforation with generalized peritonitis. When this does occur, the diagnosis is usually not established preoperatively.

2. *Acute Abscess*

The necessity for incision and drainage is the exception rather than the rule in the treatment of a palpable inflammatory tumor in acute diverticulitis. When surgical drainage is necessary, an external fistula usually follows.

3. *Acute Diverticulitis in Right Colon*

There have been several articles in the literature in the past few years on acute diverticulitis of the right colon, but only 126 cases had been reported up to 1950. The diagnosis is rarely made preoperatively, with a usual preoperative diagnosis of acute appendicitis.

4. *Acute Vesicocolic Fistula*

Sudden occurrence of a vesicocolic fistula complicating acute diverticulitis is an indication for prompt diversionary transverse colostomy. Such a procedure is also advisable when prodromal symptoms of urinary frequency, burning and pain at the end of micturition warn of impending perforation into the bladder.

5. *Acute Obstruction*

Complete obstruction may occur with or without preceding symptoms of partial obstruction or diverticulitis. Proximal transverse colostomy is indicated with the initial diagnosis of acute obstruction. Subsequently the differential diagnosis between diverticulitis and carcinoma must be considered.

6. *Massive Hemorrhage*

This is a rare indication for emergency operation. The author knows of only three reported cases in the literature,[1, 3, 7] and of one recent case in the San Francisco area. The particular site of bleeding cannot be recognized at operation, or even in the resected bowel. It is necessary, therefore, to resect all the colon involved by diverticulosis, even if this requires removal of the entire abdominal colon.

7. *Phlegmon*

Acute phlegmon of the left colon is included here on the basis of personal experience in two patients. In each instance, following emergency transverse colostomy for obstruction, the patient showed signs of increasing toxicity, with an enlarging tubular mass along the course of the descending colon and sigmoid. Intensive medical therapy failed to stop a progressively downhill course, and resection of an extensive phlegmon of the left colon was carried out as an emergency procedure of desperation. Fortunately, both patients had complete recovery of normal health.

INDICATIONS FOR ELECTIVE OPERATION

1. *Operation Subsequent to Diversionary Emergency Colostomy*

Simple closure of the artificial anus, even many months after active inflammation has subsided, will be followed by exacerbation of the disease process in from 45 to 65 per cent of patients.[5, 6] For this reason resection of the involved colon, with anastomosis, should be done before the abdominal outlet is closed.

It is also true that symptoms and signs of diverticulitis may not subside after proximal colostomy in from 8 to 25 per cent of patients.[6, 8] In such patients, further surgical intervention should not be postponed indefinitely, but resection should be done when it is evident that active infection is not subsiding. Nothing is to be gained by procrastination for more than a few weeks in these circumstances.

Procrastination is even more ill-advised when it is impossible to rule out the presence of a coexisting carcinoma.

2. *Complicating Fistula*

Such a fistula may lead to the bladder, urethra, ureter, vagina, small intestine, abdominal wall, or perineum. It is now an accepted principle that the segment of colon involved should be resected. The usual practice is to carry out a three-stage procedure: (1) preliminary proximal transverse colostomy, (2) resection of the involved segment of colon with anastomosis, and repair of any fistulous opening into a hollow viscus, and (3) closure of the artificial anus.

In suitably selected cases, single stage resection and anastomosis can be successfully carried out with no greater risk than with the staged procedure.

3. *"Uncomplicated" Diverticulitis*

(a) Continued or Repeated Attacks of Diverticulitis

Many patients with diverticulitis fall in this category. It is in this situation particularly that surgical intervention should be reevaluated. Chronic or recurring symptoms and signs give evidence of a continuing infectious process which is not localized in a diverticulum but involves to a greater or less extent the pericolic tissues. This constitutes a real hazard to the health and life of the patient. Some patients must endure chronic "bowel invalidism." And there is ever present the unpredictable hazard of the sudden complication of perforation, abscess, fistula, or obstruction.

It is in this situation particularly that resection of the involved segment of the colon should be more commonly performed, both to relieve symptoms and to prevent complications.

(b) Persistent Deformity Seen in X-Ray Examination

Evidence of persistent rigidity and irregularity of the wall of the colon is indicative of severe disease and should be considered an indication for resection. Even more important, in this circumstance, is the fact that differential diagnosis between diverticulitis and carcinoma is quite unreliable. Correct diagnosis is not always determinable by surgical exploration of the abdomen. Most physicians know of instances of unrecognized carcinoma, where correct diagnosis was made too late for any hope of cure or not until autopsy. Such tragedies may be preventable by surgical intervention and resection in cases in which the possibility of carcinoma cannot be excluded with reasonable certainty.

(c) Blood in the Stool

Not infrequently the symptom of gross blood with bowel movements is attributed to diverticulitis or to diverticulosis. It is unquestionably true that bleeding can occur with diverticulitis. However, in the author's experience, repeated episodes of gross blood in the bowel movements have been found, in the great majority of cases, to have been due to a coexisting neoplasm. In a series of 79 cases in which rectal bleeding was ascribed to diverticulosis or diverticulitis, subsequent discovery and removal of an adenomatous polyp or a carcinoma was followed by cessation of bleeding.

The identification of a polyp or even a carcinoma in a colon with diverticula, with or without diverticulitis, is frequently difficult and sometimes impossible. Specific search for a possible polypoid tumor is always indicated when there is blood in the stool. Persistent bleeding, even though repeated x-ray study does not reveal evidence of a polyp or carcinoma, should be considered an indication for surgical exploration. In the author's experience a polypoid tumor has been found (and resected) in almost every such instance. Therefore, continued evidence of blood in the stool is looked upon as a real indication for operation.

OPERATIVE PROCEDURES

For the purpose of general discussion two fundamental types of procedure for dealing with diverticulitis, proximal diversionary colostomy and resection, may be considered.

Proximal diversionary colostomy. This is not a satisfactory definitive surgical procedure for the cure of diverticulitis, but on the other hand it should not be merely a palliative operation either. Colostomy should be considered an essential emergency procedure for the purpose of control of severe infection or the relief of obstruction. At the same time it should be planned and executed as a preliminary operation, with the expectation that definitive surgical resection of the diseased bowel will be carried out before the artificial anus is closed.

The preferred site for colostomy is in the proximal transverse colon. Contrary to some opinion, the author prefers loop colostomy rather than complete separation of the afferent and efferent limbs of the colon. The opening is made by longitudinal incision with a cautery in the antimesenteric wall of the exteriorized loop. This procedure provides complete diversion of the stool and makes for easy closure later.

Resection. The definitive surgical treatment of diverticulitis is resection of the involved segment of colon.

When proximal colostomy has been performed, resection and primary open end-to-end anastomosis should be done as the second stage of a three-stage procedure. The interval between colostomy and resection is variable but it should not be protracted. A period of three to six weeks is considered sufficient in the majority of cases for control of acute infection. Further delay does not significantly diminish the technical problems of resection or the surgical risks.

Following resection, the patency of the anastomosis should be determined by x-ray examination with barium enema before the temporary anus is closed. Usually this can be done within two weeks.

When proximal colostomy has not been done as an emergency procedure, the elective operation of resection may be carried out in three stages or in one stage. Although a three-stage operation is usually considered a safer procedure, one-stage operations may be safely and satisfactorily employed in many instances. During the past three years the author has used a one-stage procedure in the majority of operations for "uncomplicated" diverticulitis. Even in the presence of a complicating fistula a one-stage procedure was used in selected cases, although in the majority of such cases a three-stage operation was preferred.

The choice between a single-stage or multiple-stage operation requires careful individual evaluation and sound surgical judgment. For this reason the preoperative plan for procedure should be tentative and final decision should not be reached until after abdominal exploration. The preoperative plan of procedure should be determined on the basis of the following factors: (1) general condition of the patient, (2) evidence of acute infection, (3) evi-

dence of extensive diffuse chronic infection or complicating fistula, (4) presence or absence of a degree of obstruction sufficient to impede adequate mechanical and antibacterial preparation of the bowel, and (5) evidence by proctoscopic examination of an adequate length of normal rectum for good primary anastomosis.

At the time of abdominal exploration, final evaluation and choice of procedure should be determined on the basis of ability to adequately resect all involved bowel and to anastomose, without tension, normal afferent and efferent limbs of the remaining colon. This usually necessitates resection below the level of the sacral promontory and frequently requires mobilization of the splenic flexure for removal of the entire sigmoid and descending colon, with anastomosis of the transverse colon and rectum.

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In Viewing the VA Medical Program . . .

The medical profession stands for the highest quality medical care for all citizens. Veterans, as citizens, should accept the responsibility for their own health needs—unless they became disabled as a result of military service; then it is the responsibility of the Veterans Administration to provide medical care and hospitalization. Because many communities do not as yet have adequate facilities to care for war veterans with non-service-connected tuberculosis or neuropsychiatric disorders, the medical profession recommends that the VA continue—on a temporary basis—to treat these patients.

Emotional Component in Gastrointestinal Disorders

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• *In peptic ulcer, ulcerative colitis and achalasia of the esophagus there is usually an important emotional component, the significance of which in the etiology of these diseases is not yet known, but which has a profound effect on the course and severity of symptoms. None of these diseases can successfully be treated without consideration of this aspect and it must be dealt with by a general physician rather than a psychiatrist, in most instances.*

Eighty per cent of the purely functional disorders of the gastrointestinal tract are manifestations of neurosis. The results of treatment in these cases should be good if correctly undertaken early in the course of the disease. The author believes that many gastrointestinal neuroses which have become intractable are such because of improper treatment at the onset, and are thus iatrogenic.

DISORDERS of the gastrointestinal tract are more often associated with an emotional component than are disorders of any other system of the body. It is therefore, a convenient place to focus attention in considering this important aspect of medical practice, since the underlying principles involved are essentially the same, regardless of the system concerned.

The content of this paper is based on the understanding which an internist without special psychiatric training may acquire regarding illnesses which involve an emotional aspect. It is concerned with methods of treatment which the family physician and the internist can successfully carry out.

It is hardly too much to say that a physician's success in the treatment of patients is directly proportional to his awareness of the emotional component of disease, for this enters into the treatment of every patient and is the major factor in from 50 to 70 per cent of all patients who consult a physician. How to assess the clinical importance of the emotional component in each individual case, and how to deal with it in treating the patient is something every physician learns from experience. Often, however, in carrying out a particular therapeutic program, it is not sufficiently realized that psychotherapy is actually being practiced.

The well worn phrase *physician-patient relationship* has profound meaning in the study and treatment of the patient as a whole. The physician's effect on a patient may be either beneficial or detrimental; beneficial when there is understanding with an ability to listen with interest; detrimental when he is insensitive to the patient's point of view, or unaware of the significance of certain symptoms which, although seeming to be those of some structural disease, may be actually caused by anxiety. It is equally important to consider the effect of the patient on the physician. If the patient shows trust in the physician and a desire to help himself, then the physician tends to exert his best efforts and is more willing to expend the precious commodity of time which is so necessary to deal successfully with these problems. But if the patient is suspicious and argumentative, as many neurotic patients are, the physician may become more concerned, for his own protection, with not missing some pathological lesion for which he could be criticized, than with studying the patient intelligently. He may become angry with the patient, whose behavior is so often exasperating as he tries to test the physician's devotion, for a neurotic patient is like a child constantly needing to be assured. In frustration the physician may say things that are detrimental to the patient. It is important that the physician should understand his own natural feelings and impulses so that he can be objective and avoid being trapped into countering a childish behavior with a scolding attitude. If he understands the principles involved in the mechanism of emotional disorders, it is possible for him to be objective. The results or treatment will be excellent in the large majority of patients with emotional disorders who frequent physicians' offices if the patients are correctly treated in the early stages.

So far the term *psychosomatic* has been avoided because it seems to have outlived its usefulness. Originally it was devised as propaganda to force the attention of the medical profession upon the fact

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that the mind and body are interrelated (something that had been known for several thousand years, but had, for a time, been forgotten). Although it was designed to signify unity of mind and body, it has come to suggest a division between ailments originating in the mind and those caused by a pathological lesion. Now there is no need for this propaganda, since the medical profesion generally is aware of the whole subject. For this reason it would appear that the term *emotional component in disease* is more valid than *psychosomatic*. The suitability of the term *organic disease* may also be questioned. It is generally considered to signify a disease with observable pathological changes. But to differentiate organic disease from functional disease in one's thinking, creates a mental dichotomy which tends to develop too much concern with separating one from the other. Since an emotional component enters into nearly all clinical problems, it is unsound to make such a black or white separation. It may even be argued that all illness is organic, since in all there is malfunction of organs, whether from a disorder originating at the cerebral level or from a pathological process of structure in the organ itself. The fact that the mechanism of dysfunction is, in most instances, not understood, does not vitiate this concept. *Disease* literally means *discomfort* and the patient with a so-called functional disorder may suffer much more than a patient with a fatal pathological process. Perhaps the meaning of the term *organic disease* should be redefined. One of the main jobs of physicians must be treatment of the patient's discomfort. To the patient the etiological diagnosis is less important than the results of the treatment he receives. So it would be desirable to avoid this division or classification, in our thinking, and to approach every clinical problem in the same way—that is, evaluate the emotional component as objectively as the physical component. A personality evaluation is sometimes more significant than an x-ray study in arriving at correct diagnosis, particularly in gastrointestinal disorders.

There are certain diseases that most physicians would agree have a strong emotional component: Cardiospasm, peptic ulcer, asthma, hypertension, and ulcerative colitis are common examples. In each the role of the emotions in the etiologic melange is still a research problem but most would agree that emotional stress may influence profoundly the clinical course as well as the symptoms. The second group of disorders with an emotional component are the purely functional abnormalities—conditions with severe clinical symptoms but without pathological alterations of structure. In the gastrointestinal system the most common examples are hysterical dysphagia, the irritable colon syndrome, functional dyspepsia and vomiting.

STRUCTURAL DISEASE WITH AN IMPORTANT EMOTIONAL COMPONENT

There are three important diseases of the gastrointestinal tract in which the clinical course and the symptoms are usually influenced by an emotional component. These are cardiospasm, peptic ulcer and ulcerative colitis.

Cardiospasm (achalasia of the esophagus) involves a pathological process in which the esophagus gradually dilates and may eventually retain large amounts of material. The cause is unknown. Histological studies have demonstrated that there is a degeneration of the nerve endings of Auerbach's plexus and this is associated with abnormal peristaltic activity. In a large proportion of cases, the onset of the disease coincides with severe emotional trauma and the degree of difficulty in swallowing is usually related to nervous tension. Whether the degeneration of nerve endings is a primary process or is secondary to dilation and stagnation of esophageal contents is not yet settled. Successful treatment, however, is directly proportional to adequate management of the emotional factors that are often present, although bougienage may also be necessary, and sometimes operation.

In a study of seven patients in varying stages of this disease, made by the author and a psychiatrist who treated the patients at weekly intervals, it was noted that while there was no change in the roentgenographic and physical manifestations of the disease there was, in the majority of the patients, pronounced amelioration of symptoms, which could be attributed to psychotherapy.[3] Cardiospasm (or achalasia) is thus an example of a pathological process with an emotional component in which successful treatment of the emotional component may relieve the patient without producing any measurable effect on the pathological process.

Peptic ulcer is so large a problem that it would be difficult in limited space to discuss adequately the emotional component which appears to be a factor in the clinical course of most cases. For the most part, extensive psychotherapy has been relatively unsuccessful in the management of patients with ulcer. Commonsense advice such as helping the patient to change a severe stress-producing job, and to change his attitudes toward people with whom emotional stress results is, however, of great value in the treatment of this disease. Psychotherapy of this type can and should be carried out by the patient's physician. In the relatively few reports of studies of the use of major psychotherapy in peptic ulcer, the results were by no means outstanding. Recently Stine and Ivy[6] made a preliminary report on the effect of psychoanalysis on the course of peptic ulcer in 17 patients, and the results were no better than those obtained with many other forms of prolonged ther-

apy. One of the most difficult problems relates to patients with intractable symptoms who are incapacitated a fair proportion of the time. Here it is hard to determine which is intractable—the ulcer or the patient. A careful history with observation of the patient in the hospital for a week or two, noting the effect of good ulcer management on the symptoms, and studying the patient's general behavior, is usually necessary before a decision can be reached. If the ulcer is intractable, meaning that it is deeply scarred or adherent to surrounding structures, operation is indicated; but if the patient's personality structure is such that symptoms are intensified because of a neurotic pattern, it is much less likely that operation will be of benefit. Even the most skilful management of patients of this type is very unsatisfactory. As a rule, the neurosis associated with the ulcer is unreachable by simple methods. If the therapist tries to cope with the underlying personality disturbance, the patient usually resists the necessary probing, since the emotional pattern has been evolved as a means to avoid facing inner conflicts. Successful treatment of a psychoneurotic patient with a peptic ulcer usually requires an experienced psychiatrist.

Ulcerative colitis. The emotional component in ulcerative colitis can be dealt with more easily than in peptic ulcer. Most of the patients quickly become very dependent on the physician and quickly respond to suggestion, to advice and support. If the pathological process is not too extensive psychotherapy of a kind the patient's own physician should give is often attended with beneficial results. This psychotherapy, which has been called "tender loving care," is merely the attention a parent would give a child, plus the medical measures indicated, which depend on the stage of the disease. A great deal has been written about psychotherapy in ulcerative colitis but the state of knowledge of it is imperfect and confused. Although sometimes beneficial, in many cases psychoanalysis, or other deep psychotherapeutic techniques, are contraindicated because they might precipitate major psychosis. No form of medical treatment is likely to succeed unless the emotional component, prominent in ulcerative colitis, is dealt with at the same time.[2] The disease is one in which close cooperation of internist, surgeon and psychiatrist is necessary. During certain phases, the internist must take responsibility and at others the psychiatrist or the surgeon should be in command.

FUNCTIONAL GASTROINTESTINAL DISEASE

In the various functional gastrointestinal syndromes, such as swallowing difficulties, vomiting, functional dyspepsia or the irritable bowel syndrome, the basic principles of management are the same. Details of treatment with medicines or with diets may vary from case to case but the evaluation and management of the emotional component, which is the crux of the situation, is essentially the same regardless of the different symptomatic manifestations.

There are four causes for a functional gastrointestinal disorder. (1) It may be secondary to the stress of other serious disease or trauma, or to the menopause. (2) It may occur in any normal person subjected to unusual physical or emotional strain. (In such cases it is temporary, is relieved when the external circumstances causing the strain are corrected, and is essentially physiologic.) (3) It may occur in emotionally stable persons who seem to have a constitutionally low threshold for gastrointestinal symptoms which are precipitated by external influences that do not affect the average person. (Mild fatigue, normal fear, nicotine, alcohol, certain foods and irregular eating habits are examples of such influences.) (4) Finally, the disorder may be part of an emotional disturbance or neurosis, often masking other symptoms of the neurosis so that on superficial examination dyspepsia, pain, heartburn, vomiting or diarrhea seem to be the only difficulties. About 80 per cent of cases are of this category. Overlapping of these groups may occur.

The physiologic mechanism by which symptoms are caused is not completely understood, but disturbance in motility appears to be the essential feature. Measurement of gastric secretion is without value in assessing the cause of symptoms originating in the epigastrium, since the same symptoms may occur whether or not hyperacidity, anacidity or normal acid values are present. Hyperacidity of itself does not cause epigastric distress. In the opinion of many gastroenterologists, mucosal inflammation—gastritis—plays a secondary role in the production of gastric symptoms. A person may have gastritis without any symptoms. Wolf and Wolff[7] demonstrated that stimulation of the normal gastric mucosa resulted in no sensations but that when the mucosa was turgid and edematous the same stimulation produced symptoms. It seems likely that a combination of mucosal congestion with exaggerated motility is the basis of epigastric distress in so-called functional dyspepsia.

In connection with motor phenomena, a word should be said about pylorospasm, which has long been considered the origin of symptoms in many cases of dyspepsia, often being considered as a clinical entity. Evidence that pylorospasm causes symptoms is inferential—roentgenographic observation of pyloric closure keeping barium from passing through. However, motility studies with balloons suggest that there is no such thing as pylorospasm except in association with ulcer or adjacent inflam-

matory disease. That the pylorus does not open is apparently due not to spasm in this region but to absence of peristaltic contractions sufficiently strong to cause it to open. Spasm may occur in the body of the stomach, however, and frequently is observed gastroscopically. In gastroscopic examination of 110 soldiers with functional epigastric distress, spasm was noted in the midbody region of the stomach in seven cases. In two of these cases, the patients stated that an exact reproduction of their usual symptoms took place at the time the spasm was noted.[4]

Although they cannot be expected to be as well informed as psychiatrists with regard to technical concepts of psychic distresses which are the basis for most of the functional gastrointestinal disorders, general physicians ought to be well aware that a functional gastrointestinal disorder is a manifestation of a personality disturbance or neurosis in approximately 80 per cent of cases. Sometimes this disturbance is very severe, even bordering on psychosis. With experience such cases can be recognized and the patient should be referred to a psychiatrist. In most instances, however, treatment in the early stages before the symptoms become fixed can be carried out readily by a general physician. The treatment may not alter significantly the patient's basic emotional difficulties, but it often brings the symptoms under control so that the patient is not incapacitated.

MANAGEMENT OF EMOTIONAL COMPONENT

Regarding treatment, it is first necessary to determine which of the four fundamental causes of the disorder is the basis of symptoms in the patient. If the disorder is primarily associated with external factors, such as overwork, improper food and overindulgence in tobacco or if it is secondary to distant organic disease, the principles of treatment are relatively simple—efforts to remove the cause. If it occurs in a patient in whom symptoms develop with relatively slight cause, the object should be to readjust his mode of living. On the other hand, if emotional tension or psychoneurosis is the basic difficulty, the treatment should be primarily psychiatric, and this is a more difficult problem. Bed rest, diet and drugs in the treatment of neurosis, unless used merely as temporary adjuncts to psychotherapy, are harmful, for they tend to perpetuate the neurosis, making subsequent psychotherapy more difficult. Menninger[5] pointed out the reasons neurotic patients uniformly demand physical treatment and resist facing underlying emotional factors: They always prefer to have a physical rather than a mental illness, and physical treatment justifies the patient's desire and belief that he should be considered physically ill. To illustrate the futility of a purely "organic" approach to the treatment of psychogenic illness, Bennett[1] made a study of 150 patients in the medical and surgical wards of a general hospital, whose complaints were eventually diagnosed as psychoneurosis. A large proportion had gastrointestinal symptoms; 740 courses of medical and surgical treatment had previously been conducted, never with more than temporary benefit. Such fruitless therapy wastes great amounts of time and money and tends to encourage reliance on cults, with loss of confidence in the medical profession.

In emotional illness the process of making the diagnosis is in itself an effective therapeutic measure. Even though the physician believes after a brief interview that the disorder is functional it is imperative that a thorough history be taken, a thorough examination made and essential laboratory and x-ray studies carried out. It is well to tell the patient at the beginning that he probably has no serious disease but that x-ray films and tests are to be made in order to be certain of this. It is important, however, that these investigations be performed only once, and after this systematic examination is made the physician should speak with conviction and positiveness.

To take responsibility for the diagnosis of functional disease and to inform the patient of it unequivocally is the most important principle in treatment. The fear of missing some lesion that may later become manifest leads to a practice of "hedging" by telling the patient to try a particular regimen then to return for further investigation if he does not improve. Since, basically, the symptoms are the means whereby a neurotic patient solves his underlying emotional conflicts, this leaves the door open for a perpetuation of the neurotic pattern. Closing this door which leads to the avenue of escape by means of physical symptoms is a difficult task because the patient always resists it. Nevertheless it is essential if headway is to be made against the underlying neurosis.

The most valuable part of the examination is the history, which may disclose positive evidence of emotional instability. Such positive findings are as essential to the diagnosis of a psychogenic disorder as x-ray evidence is to the diagnosis of peptic ulcer. The diagnosis must not be one of exclusion. A physician need not have specialized psychiatric training to recognize emotional factors, but he should have the experience to appreciate that they may produce major physical discomfort. If an incidental lesion which is not actually the cause of symptoms is noted and is treated directly, the patient is likely to become convinced that he is seriously ill. Such treatment, however, may result in temporary symptomatic relief during the time that the patient is under the physician's care, largely from suggestion. Focusing attention on an incidental x-ray abnormality is what may be termed being led astray by a red herring.

It is important not to inform a neurotic patient of the presence of clinically insignificant abnormalities, such as a duodenal diverticulum.

In order to make a positive diagnosis of neurosis, the physician must elucidate emotional and sociological factors which are significant for the patient. This is not always complex although it takes time. It is necessary to elaborate details of the patient's early family life and his reaction to the various members. Was it happy? Was he rejected? Did he thus become resentful and was he jealous of a sibling? The patient's work history, his educational background, aspects of sexual conflicts and a picture of the kind of marriage he may have, are of great importance. At the first visit the patient rarely can give all this information. If he develops confidence in the physician as a result of thoroughness of the examination, with a belief that the physician is interested and will not judge or criticize him, then the patient is likely to discuss freely his personal emotional difficulties.

The greatest obstacle to the successful treatment of emotionally induced illness is the factor of time. Most physicians feel they do not have enough time to deal thoroughly with a psychogenic disorder. Usually patients with illness of this type resist any implication that the symptoms may be of emotional origin and want a kind of therapy that can be seen or felt, such as injections or prescriptions. And although it is easier to give that kind of treatment than to spend the necessary time to deal thoroughly with the patient's problems, in so doing a physician bolsters the patient's resistance to a kind of therapy that might help.

Perhaps the problem of time is exaggerated. It is often astonishing to see how much can be accomplished with young patients who have minor emotional difficulties in a half hour devoted to explanation, reassurance and advice. Similar patients treated for long periods merely by prescriptions, injections, elimination diets and the like, with but little or no benefits, have had much more of the medical profession's time and with little to show for it. Wolf[8] has commented on this question in reporting the case of a young diabetic person who was admitted to the hospital some thirteen times a year in diabetic acidosis. After treatment of the emotional component which existed in this patient, hospitalization was not once necessary during the succeeding three and one-half years—a striking example of what can be done, by spending time on the patient's life stresses, toward saving much more of physicians,' nurses' and laboratory technicians' time over a long period.

The first step in treatment is to explain clearly that although the symptoms are not caused by any serious abnormality, they are real. Nearly always the patient fears that the doctor will consider the symptoms imaginary. A physiologic explanation of symptoms is helpful, with a description of how exaggerated nerve impulses resulting from tension or anxiety travel to the intestinal tract and cause motor disturbances which produce distress. Often the patient is worried that these abnormal conditions may lead to cancer or ulcer, and reassurance is important. However, reassurance that the patient has nothing seriously wrong must be supplemented with other measures. A positive statement by the physician that the patient can get well often has a beneficial effect. If this has been preceded by a thorough clinical examination which gives the patient confidence in what the doctor has to say, it becomes an important factor in therapy. It is also of fundamental importance that the patient be taught to accept, and to live with, his physical distress. If this can be accomplished, the symptoms nearly always begin to lessen in severity.

Explanation, reassurance and suggestion by themselves are generally not enough and should be reinforced by the support of the physician, who should give the patient advice on how to adjust himself to difficult situations, teaching him to see how situations that produce nervous strain are often followed by symptoms. The tendency of the patient is to say that nervousness is caused by the symptoms; if he can be persuaded to accept the fact that emotional difficulties are actually causing them, he will be a long way on the road to solving these difficulties himself.

In purely psychogenic disorders a bland diet, antispasmodic drugs, mild sedation with phenobarbital, or vitamins may each have a place. Doubtless these agents at times have both a physiologic and a pharmacologic action, but it may be seriously questioned whether the beneficial results attributed to them are not usually those of suggestion. Certainly the patient will welcome such treatment and in most cases it should be given at the start, while the patient is developing confidence, and needs something specific to count on. The patient should be told at the first visit, however, that this is given only for the secondary manifestations and will not affect the basic cause of his difficulty. Because the patient frequently improves, the physician may be tempted to continue a "medical" regime indefinitely. To do so would be basically unsound, because it would create a belief in the patient that the symptoms were of structural origin, a belief the patient would like to retain.

Of course, in a great many patients who are confirmed gastrointestinal invalids, simple commonsense psychotherapy is of no avail. Such patients demand diet ceremonials, vitamins and other medi- alter the course of many patients in whom the symp-

toms on an emotional basis. Few will accept the suggestion that they see a psychiatrist, and it is probable that the most expert psychotherapy would not alter the course of many paients in whom the symptoms are so firmly fixed. It seems likely, however, that much of this invalidism may have been caused by injudicious medical therapy at the beginning, many years previously. Therefore it is frequently iatrogenic. A better understanding of functional illness, with treatment of underlying causes, and of the patient as a person, rather than directing attention to the organ involved, can prevent much later disability. It is the surest way to retain confidence in the medical profession and to discourage the patient from seeking magic in some cult.

Successful treatment of functional disorders in medicine and of organic diseases with a strong emotional component cannot be successful unless the physicians that patients first consult are keenly aware of the basic problems involved. A physician should not be misled by the physical symptoms by which the underlying personality disturbance manifests itself. Nor should he be led into using merely physical methods of therapy, for in the long run benefit does not accrue to the patient by this approach. It may start him on the path toward invalidism or drive him into the hands of irregular practitioners when symptoms persist or recur. In order to be successful in dealing with this vast group of disorders, a great deal of time must be given to patients, but there is little doubt that spending enough time in the early phases, before symptoms are fixed, not only will be more likely to help the patient but will save a greater amount of time that would have to be spent later by other physicians whom these patients would continually consult.

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CORRECTION

In the article "Rheumatoid Arthritis—An Evaluation of Long-Term Treatment with Cortisone," which appeared in the May issue of California Medicine, the caption for Figure 1 on page 372 was inadvertently omitted. The caption for the figure, illustrating a brief report of a case in the text matter on the same page, should have been:

Figure 1.—*Left*, r-xay film of hand of a 57-year-old man taken before cortisone therapy was begun. *Right*, film taken March 14, 1953, after 31 months of therapy with cortisone, showing not only progression of changes in previously affected joints but also new involvement.

A Psychiatric Evaluation of the Kinsey Report

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• *In Kinsey's investigations there seems to be a tendency to study human sexuality from a biological point of view and to neglect the psychological with which sexuality is intimately involved. He does not sufficiently differentiate between sexual behavior in animals and humans which appear to be similar but which are really very different. His sociological conclusions suffer from this limited approach. Experience with patients strongly suggests that his statistics on women may include gross distortion. From a clinical psychiatric standpoint his concept of perversions is oversimplified. To Kinsey, all sexual activity represents the expression of sexual desire whereas it not uncommonly may be used to relieve tensions which are not of sexual origin.*

KINSEY STATED that he undertook his study of sexual behavior because students were bringing him, as a college teacher of biology, questions on matters of sex. They came to him because they hoped that he, as a scientist, would provide factual information which they might consider in working out their patterns of sexual behavior. "Advice of desirability or undesirability of particular patterns of sexual behavior was available to them for a great many solutions, but they had found it more difficult to obtain strictly factual information which was not distorted by moral, philosophical and social interpretations."

In attempting to answer some of the questions that these students brought, he and his co-workers drew upon their general understanding of animal biology but for a larger number of answers they had to turn to the medical, psychologic, psychiatric, sociologic and other literature, where they expected to find the desired data. "In the course of this search, however, we discovered," Kinsey said, "that scientific understanding of human sexual behavior was more poorly established than the understanding of almost any other function of the human body." This is certainly true.

Kinsey defends his right as a scientist to investigate honestly and to observe and record without prejudice and goes on to insist that the scientist is obligated to make his findings available to all who can utilize his data. "Any scientist," he said, "who fails to report or present his findings in channels where they may serve the maximum number of persons, fails to recognize the source of his right to investigate and thereby jeopardizes the right of all scientists to investigate in any field. The scientist who investigates sexual behavior seems under a special obligation to make his findings available to the maximum number of persons for there are few aspects of human biology with which more persons are more often concerned."

Kinsey points out that there seems to be no single factor that is more important for the maintenance of a marriage than the determination that marriage shall be maintained. Where there is that determination, differences between the spouses may be overlooked or forgotten and minor disturbances may be viewed in a perspective which emphasizes the importance of maintaining the marital union. Where there is no such will, trivial and minor disturbances may grow until they appear important enough to warrant the dissolution of a marriage. He adds: "The sexual factors are among those that may contribute to the happiness or unhappiness, the maintenance or dissolution of homes or marriages. Where there are common sexual interests or some common understanding of each other's sexual interests, two persons who are married may be brought together at an emotional level which transcends that to be found in any other type of human contact. Where mutually satisfactory sexual relationships are regularly available, the spouses in a marriage may find the humdrum routines of a home less irritating and may accept them in their stride. Where the sexual relationships are not equally satisfactory to both of the partners in the marriage, disagreement and angry rebellion may invade, not only the marital bed but all other aspects of the marriage. Our data suggest that there may be as many as two-thirds of the marriages, which at least on occasion in the course of the years, run into serious disagreement over sexual relationships. In perhaps three-quarters of the divorces recorded in our case histories, sexual factors were among those that had led to the divorce."

What Kinsey fails to reemphasize is that because there are so many taboos and restrictions and conflicts connected with sex, it is one of the first areas in which a disturbed interpersonal relationship is apt to manifest itself. Sex is a sensitive indicator but

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it would be a mistake to attribute a defect in an electrical circuit to a meter that indicates it.

The report on women is based on the histories of 5,940 white non-prison females of all ages, from 2 to 70, whose histories had been acquired prior to January 1, 1950. The subjects were drawn from an extremely wide array of occupations varying from taxi-dancer to superintendent of schools, and from prostitute to psychiatrist; and once a woman had agreed to be interviewed, in practically every instance, she answered all 300 to 500 questions that were asked. The interviews lasted from less than an hour to more than two hours, depending on the extensiveness of an individual's sexual experience. The questionnaire contained twelve items on the technique of masturbation, ten on the technique of heterosexual petting, 18 items on the technique of coitus (or sexual intercourse), 24 on the technique of homosexual contacts, and four on animal contacts.

Kinsey confirms what most women knew, that men have a more active interest in sex than women, and that they are aroused more readily by a wide variety of stimuli; and he gives statistics for what most men knew, that women are more disinterested and unresponsive. In remarking on the difference, Kinsey says that it is almost a miracle that "married couples are ever able to work out a satisfactory relationship."

Kinsey found that nearly 40 per cent of girls have engaged in petting by the time they have reached 16, and practically all those born since 1910 have petted by the age of 35. Among women who grew up before the 1920's, fully 86 per cent were still virgins if unmarried at the age of 25. But among those who have grown up since then, this figure has declined to 64 per cent. This means that more than one-third of today's unmarried women are no longer virgins at 25.

Of all the married women in the sample, almost one-half were no longer virgins when they married and this figure would be even higher if computed for today's women only. However, nearly half the women who were no longer virgins at the time of marriage had had relations only with their fiances, presumably in direct anticipation of marriage, or often there was just a single experience or very few. The activity of the relatively small number of women who were more promiscuous was sporadic rather than consistent.

One out of five of all the married women in the group had been unfaithful by the age of 35 and one out of four by the age of 40. Nearly half the unfaithful wives had only one partner. For nearly one-third, the act of unfaithfulness had occurred only a few times and often just once. Sometimes the infidelity was undertaken less for its own sake than in retaliation for a husband's real or imagined unfaithfulness or some other grievance.

Less frigidity was found in women than had been expected. Kinsey's figures showed that in the first year of marriage only one wife out of four failed to achieve climax, and that by the tenth year of marriage only one out of seven. He found that 10 per cent never achieve it. College women did better in this respect than those of less education. Women, unlike men, are less likely to be disturbed by an unsatisfactory sex life in marriage. They marry to establish a home and a long-time relationship in which the care of children is the primary responsibility. Few women actively seek out sexual experiences or are made terribly unhappy by its absence. The average wife does not readily understand how her husband misses her sexually during periods of separation.

Only one woman in seven or eight has ever had an all-out homosexual experience. This is about one-third the incidence in men. Practically all the pornographic literature written has been written by men. In such literature there is considerable emphasis on the intensity of the female's response and the insatiability of her sexual desires. All of these represent the kind of female most males wish all females to be, rather than what in reality they are. Women seldom dream or daydream about sex and if anything they consider the human body rather repulsive. In the words of Ernest Havemann, a staff writer for *Life* magazine, "A husband feels unloved and unwanted when his wife fails to become passionate at the sight of his manly chest at the beach. He feels completely rejected when she decides, while away from him on a trip to visit her family or her children at college, that she is having so much fun she would like to stay for an extra week. A wife discovers that her husband has a collection of erotica or likes to watch a neighbor who leaves her shade up, and takes this as a personal insult or as evidence of a dangerous abnormality on his part. Or she decides that he is out of his mind to get romantic notions when there is housework to be done or a delivery boy might be knocking at the door, while he, in turn, thinks she is completely frigid to let such incidentals get in the way." Kinsey reported that while men reach a sexual peak at puberty and then gradually decline, women's sexual appetites mature slowly and then remain at a constant level, and that because of this difference, frustrations are almost inevitable.

Kinsey found considerable variation in sexual awareness and activity in children. He attributed this either to some inherent difference in capacity to respond that is of hormonal origin, or to varying degrees of stimulation to which the children were exposed. He states, "Whether the late appearance of sexual responsiveness in some individuals means that

they were actually not capable of responding at an earlier age, or whether it means that they had not previously been subjected to sexual stimuli which were sufficient to bring responses, is a matter which it has not yet been possible to determine." He adds, "It is possible that some younger children are not at all capable of responding sexually, or at least incapable of responding to the sorts of stimuli which would rouse an adult, but of this we are not certain." Kinsey apparently does not look upon the sexual drive as instinctual. Perhaps the reason he chooses to ignore what Freud and other psychoanalysts have found—that is, the universality of sexuality in children—is that he, like the average person, prefers to think of children as "innocent and pure" by nature until subjected to stimulation.

Kinsey feels that we fail to recognize the mature sexual capacities of the teen-age youth and that there is need for a wider, general understanding of the sexual problems of the unmarried persons in our social organization; that the human female and male become biologically adult some years before social custom and law recognizes them as such and the fact that our culture has increasingly insisted that sexual functions should be confined to persons who are legally recognized as adults and particularly to married adults. He points out that the great romances of literature turned around the love affairs of teen-age boys and girls. He feels that these great lovers of history, like Romeo and Juliet, would not be looked upon as immature adolescents but identified as juvenile delinquents if they were living today. He feels that it is the increasing inability of older persons to understand the sexual capacities of youth, rather than any great change in the sexual behavior of youth, which is responsible for the opinion that there is a rise in juvenile delinquency. He doesn't come out and say so but he seems to imply that there is too much restriction of sexual activity in teenagers in our culture.

What Kinsey does not point out is that which comes from more intensive study of the sex lives of individuals than it was possible for him and his co-workers to do in their study. That is, that there are other and deeper factors operating in those who become seriously disturbed because of the legal and social restrictions on premarital sex. In the vast majority of instance when gratification of some kind is not found, the legal and social aspects are used as rationalizations or excuses to justify fears or feelings which are deeply rooted in the personality from childhood; furthermore, it is a reality that a girl who gives herself to men freely without marriage or the promise of marriage is truly lowering the price on herself and it is understandable that she is often referred to as cheap or easy. It is true that sexual restriction implies hardship on our youth because in our culture they mature sexually before they mature socially, but this is one of the prices we pay for our culture.

Despite all the criticism of the Kinsey report, we should feel indebted to Kinsey and his co-workers for their industry, patience and courage in exploring so diligently over so long a period of time a subject which, although a popular one, is so highly charged in our culture. Their review of the subject is most comprehensive, and the work that went into the study truly enormous. A veritable encyclopedia of unquestionable value has been produced. One cannot ignore the great contributions they have made to general knowledge about sexual behavior—despite the distortions that might be present as a result of limitations which are inevitably present in obtaining sexual histories.

Kinsey's report, however, shares the criticism of all statistical studies. The old adage that you can prove anything by statistics has changed to the more moderate one, that statistics are like a Bikini bathing suit—what they reveal is significant, but what they conceal is vital.

We need not look to the scientist for evaluation of the reliability of the responses Kinsey's interviewers got from the women. One famous woman novelist (Kathleen Norris) commented: "Believe me, Dr. Kinsey, the women who told you of such girlhood and post-marital sex experiences were of an easily recognized sort—the sort who wrote themselves letters from imaginary lovers in high school days, and have gone right along into womanhood fabricating sensational affairs. This is not uncommon. But genuine women with something in the past of which they are ashamed, something to which their thoughts must occasionally turn with pain and reluctance, don't talk about it."

Another woman novelist and playwright (Fannie Hurst) says: "Considering the penetrations Dr. Kinsey must attempt into the inhibitions, inaccuracies, faulty memories, distrust, vanities, modesty and shame of the women under his scrutiny, his margin for error seems wide."

Kinsey recognizes the inadequacies of his sample of nearly 6,000 women that resulted from his not having used a random sample technique. But what he seemed not to recognize was the possibility of gross distortions in his subjects' answers.

I am reminded of a couple who consulted me some years ago. The husband complained that for a long time he could not obtain his wife's cooperation in intercourse more than one time every six months. In his presence and with equal conviction she complained that her husband seemed to have no other interest and that she cooperated several times each

week to the point of exhaustion. This example is, of course, an extreme one, but it points up the difficulty of ascertaining the real facts. Kinsey admits that his test of reliability and validity are not sufficient but he found by comparing answers from 706 pairs of spouses what most people realize—that men tend to underrate the frequency of marital intercourse while women tend to exaggerate it, but he did not think the differences were very great or significant. He retested some of his subjects, both men and women, in some instances 10 or 12 years later, and found only minor variations in the replies, never exceeding a ten per cent difference.

What is lacking most is the clinical experience, the understanding of the role and carryover of early childhood fears and fantasies in adult sexuality, and the unreliability of reports of patients concerning their sexual activity. The facts regarding sexual life are extremely difficult to elicit, and in work with patients the true facts are often not obtained for months or years. Not only are patients embarrassed and afraid to report the truth, but often there is real confusion and actual ignorance concerning their own sexual experience because such things aren't talked about or even thought about. Even in the closeness of a marriage it is unusual to find complete frankness between husband and wife about sexual feelings and experiences, and it is by no means unusual for many women to be unable to say whether or not they have experienced an orgasm.

Dr. Kinsey's observation was correct that knowledge and understanding of human sex behavior were less well-established than were knowledge and understanding of almost any other bodily function. In medicine we have carefully studied the physiology of the heart and circulation, of respiration, of digestion and excretion, but physicians have shared the cultural taboo and often themselves broach the subject of sex to their patients with the embarrassment of a layman. Our ability to observe sexual behavior as we can observe other functions is impaired because of the strong feeling that it is forbidden which carries over with undiminished force from our childhood. Kinsey's stated goal was to obtain more knowledge about sexual behavior and not a study of sex as a social problem. Any conclusions of a sociological nature that he and his associates arrive at must be viewed with this in mind. His study was not designed for it and therefore is seriously open to question. Kinsey seems to make a plea to legislators and the public to hold in abeyance any proposals for dealing with sex offenders until investigators like himself have had sufficient time to discover the basis of sexuality and the problems it creates in society. It is as if he were completely surprised by his own findings of the manifold expressions of the sexual instinct; and inclined to be like a watchman who, suddenly finding his warehouse infiltrated with thieves, decides to study the causes of criminality before taking any measures to eradicate it.

Kinsey mistakenly feels that the psychologist and sociologist ignore the biological basis of sexuality, whereas he in fact tends to dismiss too readily the effect of the powerful emotions and taboos on sexual behavior. He somehow feels that the social scientist is critical of his attempt to study sex. This is not true. What he has been criticized for was his one-sided and somewhat naive interpretation of his findings and his savior-like attitude of spreading the gospel.

He seems to feel that he has discovered sex, and somewhat immodestly suggests a comparison between himself and Copernicus and Galileo. There were some who criticized the publication of his findings, but for the most part his results were eagerly and impatiently awaited. The fact that some were concerned about the effect of publicizing the raw data on sex is understandable. Apart from offending some people's sensitivities, there may also be the fear that any unleashing of the forces of the sexual impulse, which culture has so carefully sought to control, may shake the very foundations of our civilization.

By concentrating on similarities between male and female sexual responses, Kinsey is able to arrive at the conclusion "... that the anatomic structures which are most essential to sexual response and orgasm are nearly identical in the human female and male." The small child in his frankness and greater objectivity would probably insist there were great and important anatomic differences. For many possible reasons, there may be need to deny the obvious differences, and one very successful way is to preoccupy oneself with trying to find the similarities in other ways.

In discussing the physiology of sexual response and the natural characteristic of organisms to respond to touch, Kinsey states, "Sexual difficulties in marriage and personal maladjustments are not infrequently the product of (learned) perversions of the biologically normal reactions to tactile stimuli." To reduce the hatred of a wife who doesn't want her husband to come near her or touch her, or the fear of a young girl of being touched lest it arouse her and lead her into difficulties she has been taught to avoid, to a perversion of the sense of touch, is not only an oversimplification, but actually misleading. It is this tendency of Kinsey's to minimize the emotional aspects of human sexual life that has detracted most from the value of his contribution.

Another example is the attempt to explain so much of sexual reactions in physiological terms: "The tortured facial expression of persons who are sexually aroused, and particularly of those who are near the

point of orgasm, usually include expanded nostrils, an open mouth and pursed lips, which suggests that the individuals are struggling to secure air to satisfy the demands of the increased pulse rate and high blood pressures." It is highly improbable that it is air they are struggling to secure.

Kinsey claims that the general opinion that the female is slower to reach orgasm than the male is a misinterpretation of the facts and offers reports from women who masturbate as evidence that the female is not slower. He confuses the issue still further by going on to say that the slower responses of the female in coitus appear to depend in part upon the fact that she does not begin to respond as promptly as the male because she is not as apt to be aroused by the anticipation of intercourse and does not begin to respond until there has been a considerable amount of physical stimulation. Here again, as with the anatomic comparison, Kinsey seems to go out of his way to emphasize the similarity between men and women with peripheral evidence while de-emphasizing the importance of their obvious differences.

It is of interest that he defines orgasm as the explosive discharge of neuromuscular tensions and omits any mention of the peak of pleasure. In this sense, he seems to be very much the observer—for one cannot see or measure very well a feeling of pleasure. Orgasm becomes a drop in blood pressure instead of an experience.

Kinsey is correct in pointing out that only a minute percentage of persons who are involved in sexual behavior that is contrary to law are ever apprehended, prosecuted or convicted, but one would wonder about the basis of his assertion that society has threatened the security of most of its members by its laws to protect itself from serious sex offenders. To be sure, there are injustices in the handling of some sex offenders, but Kinsey gives the impression of wanting to throw the baby out with the bath water. He claims to have started his study to collect facts, but soon seems to take on the role of the public defender concerned with protecting the public from "the irreparable damage that society and its laws cause in its members." He says, "The laws penalizing homosexual approaches, as well as homosexual activities, offer the possibility in some states of an individual being incarcerated for life because he shows 'homosexual tendencies.' They have developed a breed of teen-age law-breakers who first seek satisfaction in sexual contacts with these males and then blackmail and assault and murder if necessary and escape legal punishment on the specious plea that they were protecting themselves from indecent sexual advances." He implies that our laws, or their misguided enforcement, are responsible for this special breed of delinquents, and thereby naively suggests that some unstated change in the law will resolve this problem.

Quite the opposite point of view is expressed by Dr. Kegel in the December 5, 1953, issue of the *Journal of the American Medical Association*. He said, "The necessity for mitigating the impact of the Kinsey report on the public is illustrated by a recent radio discussion on juvenile delinquency. Judge Bernstein of Los Angeles stated that it has become difficult to answer delinquent girls who brazenly quote the Kinsey report in order to justify their actions. Similar observations have come from probation officers. A former president of the California Bar Association remarked that, "Judges are looking for well-founded medical opinions to counter the irresponsible use of the Kinsey report."

Karl Menninger, in his review of Sexual Behavior in the Human Female in the *Saturday Review of Literature* (September 1953) said, "Kinsey crashed the iron curtain of social hypocrisy, submitting convincing data in a way that Freud, Havelock Ellis, Kraft-Ebbing and hundreds of others could not do." He goes on to add, however, that, "His compulsion to force human sexual behavior into a zoological frame of reference leads him to repudiate or neglect human psychology and to see normality as that which is natural in the sense that it is what is practiced by animals."

"Homosexuality is to be regarded," Kinsey says, "as a natural form of sexuality, like any other, because it is common in human beings and because animals practice it." In comparing the random homosexual behavior of animals to the highly charged substitute behavior of the human homosexual, Kinsey reveals his lack of clinical experience. It would be like saying that sinusitis is normal because fifty per cent of people suffer from it. His inference is that, "The more of sex that can be let out—the better," and that the total goal and ultimate criterion of sexual satisfaction is the orgasm.

Kinsey's report may lift the feelings of guilt from many people who continue to feel guilt needlessly about sexual activities of their past, or sexual wishes of the present, when they see they are not unique. But this is done at a price—that of giving some authority to those who would continue to act out their sexual impulses to the detriment of others and with no advantage to themselves except the momentary release of tension. To Kinsey all sexual activity represents the expression of sexual desire, whereas it is seen clinically that sexual activity may be used as a sedative by some to relieve tensions which are not of sexual origin.

One might ask the question: Is it in the interest of an individual or of society with which he must live to be relieved of feelings of guilt about sex? What part of our culture, our inventiveness, our searching

for the easier and better life, stems from the inhibition of our sexual impulses? Freud, in *Civilization and Its Discontents,* postulates some direct connection. Certainly one cannot, as Kinsey seems to have proposed, consider something right or wrong because it occurs frequently. As Karl Menninger points out, "The fact that nearly every person in the United States speeds or passes red lights does not make it right or desirable to do so, and because everyone does we don't propose to change the law making it legal to do so. To be freed from the torturing delusion that one is a monster, a lone and isolated exception among human beings is indeed a comfort, and some benefit is possible from Kinsey's statistical announcement. But it is by no means certain that if one learns that other people have temptations and yield to them, he will have a happier marriage, better sexual adjustment, and all the other bright results spoken of in the newspaper and magazine reports. If one followed Kinsey in his assumption that sexual behavior is entirely a matter of sexual equipment, conditioning experience and chance, there is no reason to assume or hope that the publication of his findings will in any way change things."

Dr. Lawrence Kubie, in his article *The Psychiatric Implication of the Kinsey Report (Psychosomatic Medicine,* 1948), suggests: "Criticism should not be directed at Kinsey and his co-workers, since their mistakes, like their positive achievements, are quite obviously the predictable results of the background of training and experience which they brought to it. Every mistake is the result of their lack of experience with the phenomenology and psychology of illness. It would be wholly unfair to criticize the authors for what they could not be expected to know, but it is harder to excuse those who played an advisory role in the planning of the study for their failure to insist that it be a combined operation, in which all that is known from the study of sick individuals would constantly be used in the evaluation and interpretation of the statistical data on large groups."

Kubie adds: "Kinsey seems to assume that because something is widespread in human behavior (like homosexuality or heterosexual promiscuity) it must therefore be regarded as 'normal.' It is not that the psychiatrist assumes a moralistic attitude, as Kinsey suggests, but that he recognizes in such behavior a pathological searching for something unattainable. Persistent homosexual behavior in human beings is not like the casual substitutive behavior of the animals in which seemingly similar behavior has been observed, but is the neurotic preferred solution to unconscious fears that are derived from the child's wish to be heterosexual. Kinsey goes far astray in equating, even for statistical purposes, the transient homosexual episodes of pre-adolescence and adolescence with those seen later in life. The early exploratory experiences should not be included in the overall statistics on the incidence of homosexuality. We would not consider an insatiable eating compulsion normal, but see in it a neurotic mechanism that has taken hold of a biological mechanism and is driving it overtime. The amount of food ingested by such a person may be much more than is required physiologically. Sexual activity, too, must be considered not just from the standpoint of quantity, and it is unwarranted to deduce anything about man's inherent constitutional sexual endowment from the statistics on the number of orgasms experienced per week or per year. It is not unusual in psychiatry to see the frequency of sexual activity change dramatically as a result of treatment. Infrequent activity more often is related to conscious and unconscious guilts and fears, and excessive activity to neurotic compulsive forces, than to constitutional differences. Kinsey found different rates of sexual activity among three educational levels, suggesting an awareness of the role of psychological forces, but not to the point where its importance was recognized."

There is some clinical evidence that even the age at which adolescence occurs can be influenced by psychologic factors. Kubie tell of the observation of some endocrinologists that the onset of menstruation may be delayed by neurotic difficulties, and that obese little girls and boys, whose sexual maturation is delayed by compulsive overeating of fatty foods, slim down and pass through a swift maturation of all secondary sexual characteristics when their food habits change with the relief of their emotional difficulties.

Our society is based on the family structure. We feel (and experience has taught us) that a child is best prepared to cope with life if conceived and reared by two parents who share an interest in it and in each other; who are not so concerned with their own problems and wishes that they cannot in a constructive way cater some to the child's interests, training and education in the broad sense; who are sufficiently mature so that they can appreciate there are differences between children and adults; who have gained a sufficient degree of self-control and ability to postpone seeking pleasure toward a greater ultimate pleasure; and who can, through example, pass some of this philosophy on to the child. They must be able themselves to resist temptation, when giving in would be destructive, and demonstrate that they are capable of frustration and even some deprivation while working constructively to alter it.

For this reason society attempts to discourage having children born out of wedlock, and tolerates but does not encourage marriages that result from necessity rather than affectionate choice. It prefers to have

marriages start with a healthy foundation of love and mutual respect between a man and a woman. Unfortunately, children mature sexually before they mature socially and culturally, and because this lag exists our culture has sought some means of postponing sexual mating, and the children that result from it, until social maturity has occurred. To do this successfully it is necessary to start with the young child. The strong taboos regarding sexuality in young children are in part slanted toward helping the child learn that which preceding generations have learned and toward the suppression of active sexual interest until some later time when the child, grown up, can assume the responsibility for children that may result from sexual activity. It is just because adolescence is the period of most active sexual desire and impulse that something stronger than hurried advice from parents is necessary if control is to be maintained.

Adults, because of their greater understanding and their greater ability to control their impulses and resist temptations, can more easily talk about sex and read about sex and engage in sex without going off the deep end. But because there is the residual of the small child in each adult the more anxious members of society would have us go on treating adults like children by denying the existence, through censorship, of any sexual feelings or impulses other than the perfectly conventional and then only in connection with the marriage bed.

The inevitable question about the Kinsey report will be concerned with its effect on society. It can have many effects, good and bad, but much less of both of these than we may think. Those with neurotic guilt that stems from deep within the personality will not derive much consolation from the knowledge that they are not alone; in fact, they will continue to find reasons to differentiate themselves from those Kinsey has described. Those who act out their impulses will probably go on doing so, and, if they can get away with it, use Kinsey's figures as the excuse or justification.

The book about women was most particularly awaited because women are such an enigma to most men. In cases of marital discord both man and wife will probably find something in Kinsey to back up their contention that they are right, because in all probability both are already too concerned with their own needs and too angry to listen to the other's point of view. The husband who is generally irritated with his wife, and who is critical of her coldness and discontent in sex will not derive much comfort from reading Kinsey, nor will the wife who is already convinced that her husband and all men are just interested in sex and nothing else.

Much credit should be given to Kinsey and his coworkers, but to some degree their work is really a product of our times rather than a revolution. It has been the gradual relaxation of the attitude toward the discussion of sex, in great part stemming from the work of Freud and others, that permitted Kinsey to do his work with official sanction and support, instead of being put in jail. It was the same changed attitude that permitted its publication and that permitted the public to admit interest in it. The book, therefore, is important as a *marker* in the sexual history of our culture.

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Vitamin A and Urolithiasis

A Review

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• *The early observations of Osborne, Mendel, and Ferry, and later of Higgins, showed that the incidence of urolithiasis was high in rats fed on diets deficient in fat soluble vitamins. Subsequently, the results of dark adaptation studies were interpreted as showing a relationship between vitamin A deficiency and calculous disease. However, a review of the literature including more recent data discloses that there is no evidence either clinical or experimental to support the claim that vitamin A deficiency is an etiologic factor in calculous disease in man in the United States.*

HIGGINS[4, 5] is the chief proponent of the view that insufficient intake of vitamin A has a specific effect in the production of urinary calculi and that the stones may be dissolved by acid ash diet and increased intake of vitamin A. His opinion is based upon the experimental production of calculi in rats fed on diets deficient in vitamin A. In 1917, Osborne, Mendel and Ferry[13] reported stones in the bladder in 81 of 857 rats at necropsy, and it was noted that all rats with calculi had been fed on diets deficient in fat-soluble vitamins. Higgins,[5] in reporting later on the experimental production of calculi in rats by the feeding of diets deficient in vitamin A observed that the calculi were associated with three changes in the urinary tract: (1) keratinization of the urinary epithelium, (2) urinary infection, and (3) alkaline urine. The addition of vitamin A to the diet caused the urine to become acid and the calculi previously formed dissolved.

This subject was reviewed by the Council on Pharmacy and Chemistry of the American Medical Association in 1935.[16] The Council concluded that there is no doubt that urinary stones may be produced in experimental animals by diets deficient in vitamins A and D, and unbalanced in mineral content. But the majority of investigators failed to find that a deficiency of vitamin A alone will cause stones. Keyser[9] pointed out in 1935 that the experimental work of Higgins was done on rats, a species phylogenetically rather remote from man. He also noted that the occurrence of lithiasis was a late stage in progressive malnutrition, other prominent and concomitant features being biliary calculi, cachexia and changes in the cornea, in the retina and in the respiratory and alimentary tracts. These features are not ordinarily concomitants of calculous disease in man in the United States. It might also be noted that Higgins' observations suggest that the stones in the experimental animals were owing to alkaline urine, a secondary rather than a primary effect of vitamin A deficiency. This is indicated by the fact that the addition of ammonium chloride to the diet reduced the incidence of calculi, and by the fact that the urine became acid upon the administration of vitamin A.

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Clinical reports of treatment with vitamin A have not supported Higgins' theory. For example, in 1937 Oppenheimer and Pollack[12] reported on a series of 52 patients with urinary calculi who were treated with diets rich in vitamins A, B, D, E, and G and having an acid ash with sufficient ammonium chloride added to assure a pH in the urine below 5.2. In two of these patients, the regimen seemed to precipitate uremia and acidosis. In none of the subjects was even partial solution of the calculi demonstrable by x-ray examination; in five, the size of the stone increased, and in one a new stone formed during the treatment.

The ability of the eyes to adapt to dim illumination has been used as a diagnostic test for vitamin A deficiency. Studies of dark adaptation in children have been carried out by Jeans and his colleagues, who used at first the Birch-Hirschfeld photometer. Jeans and Zentmire[7] examined 404 rural and village school children of Iowa from 6 to 15 years of age and found extensive night blindness in 26 per cent of the rural and 53 per cent of the village children. The early studies of Jeans and others were interpreted as showing that vitamin A deficiency was rather prevalent in the United States, and this interpretation has been cited in support of the postulation that avitaminosis A is an etiological factor in the production of urinary calculi. Subsequent investigations, however, have not supported the conclusions of Jeans and his colleagues. For example, Palmer and Blumberg[14] and Isaacs, Jung, and Ivy[6] failed to confirm the re-

sults with Jeans' methods and seriously questioned their reliability. Steven and Wald,[15] in reviewing this subject, said that the methods of dark adaptation as originally employed apparently suffered from an uncritical appraisal of the variability of the measurements, and of the limitations of a "normal range." They said also that other methods, such as the determination of vitamin A lability or of content of vitamin A in the blood, possess a higher degree of specificity. Studies with these methods have so far indicated a relatively low incidence of vitamin A deficiency. Lindqvist[11] found abnormally high visual thresholds accompanied by abnormally low serum vitamin A concentrations in less than 5 per cent of a group of hospital patients particularly suspected of vitamin A deficiency. Lewis and Haig[10] found only one abnormally high and vitamin A-labile threshold among 144 children, mostly from poor homes, under hospital care in New York. The lowering of the visual threshold of the dark-adapted eye by means of supplemental vitamin A was used by Steven and Wald[15] as an index of vitamin A deficiency. Employing this method, a field study was conducted in Newfoundland and Labrador, an area noted for its long history of deficiency diseases. They found an incidence of vitamin A-labile thresholds of about 10 per cent, more than half of which were within the "normal range." It was their opinion that more extensive use of controlled and accurate procedures would show that even very mild deficiency in vitamin A is rare in occidental populations. Ezickson and Feldman[3] studied 25 patients with calculous disease and 50 normal subjects for vitamin A deficiency by means of a dark adaptation test. They found that 24 out of 25 patients with urolithiasis showed pathologic deficiency in dark adaptation. This observation has been interpreted as supporting the vitamin A deficiency theory in spite of the fact that 14 out of 15 of their patients who were treated with vitamin A had no improvement in dark adaptation after therapy. Their work is open to the same criticism as other early studies of visual dark adaptation.

The determination of the concentration of vitamin A in the plasma is now a relatively accurate procedure. Aron,[1] in a review of the clinical significance of plasma content of vitamin A, said that under normal conditions the human organism has a tendency to maintain its plasma vitamin A at a constant level which is characteristic for the individual person; further, that daily supplements of vitamin A have no lasting effect on the vitamin A content of the blood. Aron observed that even though a rise in the amount of vitamin A in the plasma might be observed after a very large intake of the substance, the effect is transient and within ten days the plasma content is back where it was before the large intake. On the other hand, when the oral intake of vitamin A and carotene in the diet is greatly reduced or practically nil, the amount of vitamin A in the plasma may remain unchanged for several months. The human organism has at its disposal, Aron noted, large reserves of vitamin A, 85 to 95 per cent of which are stored in the liver and the remainder in bone marrow, kidney and other tissue. He said that exhaustion of the vitamin A reserves of the body will hardly ever be observed in this country, and that when definite changes in the vitamin A content of the blood do occur in persons in the United States, they are practically always caused by some disturbance of the metabolic regulation of the vitamin, by insufficient release of the vitamin from the liver to the blood.

Jewett, Sloan and Strong[8] compared patients having urolithiasis with normal subjects by means of dark adaptation tests and determinations of vitamin A content of the plasma. Dark adaptation tests were performed on 20 patients with urolithiasis and 40 normal controls. They were able to detect no significant difference in the two groups. Determinations of the concentration of vitamin A in blood plasma were done on 20 patients with urolithiasis and 33 normal controls. No differences in these two groups were found by this study. Autopsies were performed on 78 patients with calculi, and in none of them was there keratinization of the trachea and bronchi which, according to Blackfan and Wolbach,[2] are the sites of the commonest and earliest appearance of keratinization in infants that die of vitamin A deficiency.

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Cancer Diagnostic Tests

PENN REACTION

A Statement by the Cancer Commission of the California Medical Association (May 1954)

FROM TIME TO TIME, announcements appear in the press concerning new alleged cancer tests. Up to the time of preparation of this statement, not one of the numerous "blood tests" for cancer has withstood scientific investigation. Many have given rise to false positive results with distressing consequences to patients and their families.

During the last few months, there has been considerable publicity concerning a so-called seroflocculation reaction for cancer, otherwise known as a Penn or Penn-Dowdy blood test. As far as the Cancer Commission of the California Medical Association can ascertain, the following is the present status of this procedure.

1. The Penn seroflocculation reaction is not a cancer test. It is positive in a majority of patients with cancer *and* in patients who:

(a) recently have had injury or operation;
(b) have active rheumatoid arthritis;
(c) have cirrhosis of the liver;
(d) have fever over 100 degrees;
(e) have active tuberculosis;
(f) are pregnant;
(g) are taking medication such as desiccated thyroid, estrogens, insulin, epinephrine and corticotropin (ACTH).

In other words, this experimental test is positive in many conditions besides cancer, and is therefore nonspecific.

2. In a certain number of patients who actually have cancer, the reaction is negative. The precise number of such false negative reactions, and of the previously mentioned false positive reactions is under investigation at present. It will take many months, if not years, to complete this investigation. The minute that reliable information concerning the value of this reaction in independent hands is available, it will be made public.

3. Should this reaction prove to be of such value as to endorse its general use, it would constitute a supplementary item of evidence in the differential diagnosis of cancer. Its proponents do not suggest, as yet, that it deserves any consideration in mass screening of asymptomatic individuals.

4. The National Research Council maintains a Committee on Cancer Diagnosis and Therapy. This committee has prepared criteria for the evaluation of diagnostic procedures. The Cancer Commission of the California Medical Association has recommended that investigators note these carefully prepared criteria and that due attention be given to them in making clinical tests on any type of proposed cancer diagnostic procedures.

5. Pending the discovery of a particular blood or chemical test, citizens are urged to utilize tried and tested methods of cancer detection. The most reliable method consists in physical examination by a qualified physician.

Inhalant Allergens in Palm Springs, California

HUGH STEPHENS, M.D., Palm Springs

• *Although Palm Springs, California, offers a pleasant desert climate that is often advantageous in treatment of respiratory allergies, physicians should be made aware in referring their patients that definite pollen factors must be taken into consideration in recommending a visit to Palm Springs, and should try to determine the compatibility of their patient's allergic sensitivity pattern and the particular seasonal incidence of pollen concentration in Palm Springs. It is believed that the most important pollens there are those of Bermuda grass, olive tree, mesquite, dicoria, false ragweed, scales, and hymenoclea salsola. A favorable climate alone does not permit a patient to disregard good allergic management.*

IT IS COMMON PRACTICE for physicians in California and elsewhere to send patients with chronic allergic disease of the respiratory tract (particularly those with combined infectious and allergic sinusitis and infectious and allergic asthma and bronchitis) to desert areas for "relief." Apparently they do this without much regard for the particular local atmospheric situation as it relates to inhalant allergens in that desert area.

Every year the author observes dozens of allergic patients who have been given the rather vague advice, by well meaning but despairing physicians, to go "to the desert." Many of these patients do fairly well, but there are also many who do poorly because they visit the desert at a time when inhalant allergens abound in the desert air.

There is a definite pollen season in Palm Springs, just as elsewhere; and, simply from observation of symptoms, it can be said that there is also a relatively pollen-free period, between December 1 and February 1, and that the period often extends to March 1. This pollen-free season coincides with the season of relatively warm days and cold nights. At this season respiratory symptoms in allergic patients are provoked usually only by cold air, by respiratory tract infections (which are usually at peak incidence in the tourist population coming with colds from all over the world), by house dust, animal emanations and the usual foods. This mid-winter season approaches the ideal so far as freedom from pollen in an atmosphere of daytime warm air is concerned. The warm, sunny days in mid-winter in Palm Springs are made to order for persons with respiratory tract disease who are sensitive to pollens and to cold air. However, the early sunset behind the neighboring mountains makes for a rapid change from warmth to cold; and for persons with membranes of the respiratory tract sensitive to cold air the cold desert nights are often a problem. A well heated room is a nighttime requirement. A croupy, asthmatic child must be protected from the laryngospastic and bronchospastic stimulus of rapidly cooling air as the sun falls behind the mountain at about 3 o'clock.

The short mid-winter season of freedom from wind-borne pollen is followed by a succession of plant pollinations throughout the remaining nine months of the year. The native flora of Palm Springs include principally creosote bush, hymenoclea salsola, allscale and wingscale, desert ragweed, false ragweed, mesquite, "cat's claw," cholla cactus and smoke tree. Mixed with these native desert plants are several other less conspicuous "wild" plants, including jimson weed, "desert willow," "telegraph weed" (heterotheca grandiflora), "sandpaper plant" (petalonya thurberi) and a shrub of the euphorbiaceal family, croton californicus. The cactus, the smoke tree and the creosote bush may be ignored completely as allergenic factors. From clinical observation and from observation of maximal reaction to scratch tests, the author has come to believe that hymenoclea salsola, the scales and the special ragweeds mentioned must be considered, and mesquite seems to be one of the most important of the spring pollinators.

Apart from the native flora, there are many respiratory allergens present in the form of pollens of cultivated and imported plants. Chief among these are Bermuda grass, rye and the olive tree. Arizona cypress is considered a hay fever plant in Arizona, but the author has been unable to relate clinical symptoms to the period of pollination of that plant in Palm Springs.

Another plant of importance as a cause of seasonal respiratory symptoms is the dicoria canescens weed which grows in late summer and fall on either side of most roads and in recently cultivated areas. This plant is green when most other wild plants are gray and brown and dead-appearing, and is particularly striking because of its tendency to grow prin-

cipally along the roadsides. As this plant apparently has not previously been recognized as an important cause of allergic disease in Palm Springs, some evidence to indicate its probable importance will be presented herein.

Surveys of the flora of Palm Springs itself show a complete absence of true ragweed. Likewise the sagebrushes are not found. Russian thistle, a potent cause of hay fever elsewhere, is not found within the city limits. Cocklebur likewise is not present. There is no darnel, no pigweed and no sheep sorrel. English plantain, practically speaking, does not exist. Poverty weed is absent and there is not much lambsquarter, careless weed or wild oats. Pepper trees and eucalyptus are rare. There are a few sycamores, no walnut trees, and small numbers of Chinese elm, Arizona cypress, locust and various citrus trees. In some areas cat's claw, a tree similar in appearance to mesquite, grows extensively. (The author has not been able to find on the market a testing allergen for this plant.) Tamarisk trees are common but no allergic significance can be attributed to them on the basis of clinical observation and none of the patients given skin tests with material prepared from the pollen had positive reaction.

There are a few privet hedges in Palm Springs, and occasionally the author has been consulted by gardeners who complained of symptoms they ascribed to sensitivity to it. Skin tests showed them to be sensitive to privet extract. Visitors often suspect oleanders of causing symptoms; but the flowering of this plant coincides with the grass pollen season, and the absence of measurable amounts of oleander pollen in samples collected from the air indicates the possibility of mistake as to the source of symptoms.

The winter lawns in Palm Springs are of rye (planted in the early fall) and, although most of the patients treated by the author who are sensitive to grass pollens have strong reaction to rye by skin test, the rye seems to be only a minor problem, probably because the grass is limited to formal lawns which are kept well trimmed and mowed.

Depending on the amount of rainfall, the amount of cold weather in the winter, and the variable time of onset of warm or hot weather in spring, the spring pollen season at Palm Springs will begin between March 15 and May 1. Wind factors in the spring are important in pollinosis, and it well to know that spring and summer winds are more constant in the north and east sections of town than in the south and west sections which are nearer to the protecting mountains.

Early tree pollens, such as cottonwood and palo verde are blamed by many persons with hay fever, but the author has been unable to correlate symptoms of early vernal pollinosis with skin reactivity to stock extracts of palo verde or various cottonwood pollens (Fremont and Black). However, there is good correlation of symptoms to results of skin tests with olive tree pollen. This tree is not native and is apparently only a factor in sharply localized areas of town (it is a favorite adornment for a patio), but is a strong factor in producing vernal hay fever in patients living in proximity; and such patients usually have maximal reaction to scratch test with olive pollen.

In April and May, and part of June, the native mesquite is probably one of the greatest factors in allergic disease from pollens. Positive reaction to scratch tests with mesquite is observed consistently in patients with vernal hay fever. Certain parts of town abound in mesquite and some trees are as high as a three-story building.

Another spring pollen blamed by many residents, perhaps rightly so, is that of encelia. This yellow flowering shrub is very evident on the lower slopes of the surrounding mountains and is probably an allergic factor in residents of foothill areas. This pollen gives a fairly high incidence of skin reaction.

The worst pollen in Palm Springs is that of Bermuda grass, which is being used more and more for spring and summer lawns. It spreads wildly in irrigated areas, and it pollinates close to the ground where mowers do not remove the forming pollen. The late spring is the time of heaviest pollination.

About July 15, another comparatively pollen-free season begins. Except for Bermuda grass, which slowly dies out in the heat except in localized areas where it is irrigated, there is little pollination of importance between mid-summer and fall. Many persons with allergic disease do very well in Palm Springs during the summer. The late summer pollinosis coinciding with the pollination of allscale and wingscale seems to be relatively benign. Since a few patients seem to be bothered non-specifically by evaporative coolers, the author advises changing cooler pads frequently to discourage mold growth in them. More and more people are providing pollen-free summertime indoor comfort by installing mechanical cooling systems.

There is also an autumn pollen season, whether severe or mild depending on whether or not there is late summer or early fall rain. At that time a rather explosive, although not widely prevalent, allergic disease of the respiratory tract occurs, and although the evidence is not conclusive, the author has been able to attribute it tentatively to the weed dicoria canescens: There is correlation between the pollination season, the epidemic occurrence of symptoms of respiratory allergic disease and the presence of strongly positive scratch test reactions to this pollen in the patients. The average span of pollination of

this plant (and of symptoms in patients sensitive to it) is October 1 to November 15.

It was a patient's observation of consistent coincidence that led the author to recognition of dicoria canescens as a cause of allergic disease in the autumn:

A white man 53 years of age, first observed October 1, 1951, said that he had violent hay fever in November each year in Palm Springs, where he had lived for 20 years. The symptoms always abated with the first frost. There were no other allergic symptoms at any time. Skin tests were carried out and he had reaction, three plus or four plus, to hymenoclea salsola, poverty weed, cocklebur, desert ragweed, slender ragweed, western ragweed, false ragweed and olive tree. An extract for hyposensitization was made up from four ragweed pollens and cocklebur. Hyposensitization was started and the patient had milder symptoms than he had had in preceding years, even though the treatment was started late in the season. The patient discontinued treatment at the time of complete subsidence of symptoms on November 24, 1951. He returned for preseasonal treatment on August 27, 1952. The same extract was used. Mild symptoms began on October 10, 1952, and the disease progressed until on November 1, the patient said, the symptoms were the worst he had ever had. On November 15 he reported final complete relief of symptoms and there was no recurrence in 1952 after a heavy rain. At the time of severest symptoms the patient noted unusually extensive and luxuriant growth of a weed which he said he had noticed always was evident at the time of year he had symptoms. The weed was identified as dicoria canescens and the author asked the Hollister-Stier Company to supply an extract of dicoria for skin testing. On June 20, 1953, the patient was tested with dicoria and had maximal reaction. (Other patients then were tested and most of those who had hay fever in the autumn had considerable reaction to dicoria.)

It is common knowledge in the Palm Springs area that pollination of the date trees is an occupational hazard, but it is doubtful that date pollen is a source of much difficulty except to persons who work in the groves or packing sheds.

Sometimes after a generalized desert windstorm, pollen-sensitive patients may have symptoms at times other than the pollen season. It is apparently established that sufficient pollen settles on herbage and on desert sands to bring about a fairly high, unseasonal, pollen count in the atmosphere at such times. It is probable that pollen granules stay buoyant for longer periods in the desert than they do in damper climates.

In general, Palm Springs can be an ideal place to stay for a person who has allergic disease. However, he must observe the precautions with regard to house dust that he would in any other locality, and if he has hypersensitivity to foods, animal dander or other substances he must abide by the indicated restrictions and protections. He must guard against respiratory infections by isolation technique (and the mid-winter incidence of such infections is probably higher in Palm Springs than in most other areas because of the large numbers of people who come from all over the country to try to "shake off" colds and their sequelae while basking in the sun.) He must recognize the great day-night temperature differential in winter and plan for it. He should be aware of the pollen potentialities and be appropriately hyposensitized. He should also avoid wind in the pollen season and seek hobbies that do not invite over-exposure to pollens. Avoiding proximity to manure in the fall when new lawns are being planted is another precaution. And it might be well for him to be retested for sensitivity to pollens, and, if he is reactive, the extract used for hyposensitization should include mixed grasses (with emphasis on Bermuda grass), olive tree, mesquite, dicoria, false ragweed, desert ragweed, mixed scales, and hymenoclea salsola. If he has his own home on the desert, he should have a year-around lawn of dichondra (which does not require manure and does not produce pollen of importance).

863 North Palm Canyon Drive.

CASE REPORTS

- **Chromoblastomycosis**
- **Mumps Meningoencephalitis**
- **Large Twins**
- **Acute Pulmonary Edema Induced by Hepatic Pressure**

Chromoblastomycosis

NORMAN E. LEVAN, *M.D.*, Bakersfield

THE PURPOSE OF THIS PAPER is to report the first case of chromoblastomycosis recognized in California and apparently contracted there.

Chromoblastomycosis is a specific chronic mycotic granuloma, limited to the skin and subcutaneous tissues. It is caused by one of several closely related fungi, Phialophora verrucosa, Hormodendrum pedrosoi, and Hormodendrum compactum, any of which appears in tissue smears and sections as clustered cells with thick brown walls. These cells are pathognomonic for the disease. The depth and chronicity of the infection on the one hand, and on the other the apparent absence of internal involvement, place it midway between the dermatomycoses and the systemic fungal infections.

The disease was first noted in Brazil in 1911 by Pedroso[14] but not reported until 1920. The first North American case of record is that described by Lane[8] and by Medlar.[10] Since then approximately 160 cases have been reported, chiefly from Brazil and the Caribbean area,[4, 5, 13] 14 from the United States,[3, 6, 7, 9, 11, 15] and others scattered over all other parts of the world.[2, 12, 16] Most of the patients were agricultural laborers, and many had a history of trauma by wood or vegetation. In most the infection was limited to one leg. Other sites often involved are the upper extremities and the face. In rare instances lesions have occurred on covered parts. While autoinoculation occurs, spread from one human to another has not been reported except experimentally.[1]

Chromoblastomycosis is a disease of great chronicity; the lesions grow slowly over a period of years and even decades. As with other infectious granulomas, there is great variation in gross morphologic appearance of the lesions,[4, 9, 13] but the usual appearance is that of warty hypertrophic plaques either in one continuous mass or in a number of closely spaced foci. There are only minimal associated symptoms, such as slight itching and, if there is extensive involvement as sometimes there is, discomfort from the weight of the elephantiasic extremity. Spread to bones or viscera has not been reported. Regional enlargement of lymph nodes, while frequent, is commonly ascribed to accompanying secondary infections.

While varying in accordance with the gross features, the histologic features[12, 13, 15] are usually similar to those of North American blastomycosis, namely those of infectious granuloma. Variable hyperkeratosis and acanthosis are found, but only rarely the pseudo-epitheliomatous hyperplasia commonly observed in blastomycosis. To be seen in the corium are edema, fibrosis and granulation tissue with an infiltrate of polymorphonuclear leukocytes, lymphocytes, epithelioid cells, plasma cells and giant cells. In some cases the conditions are more tuberculoid, while in other miliary abscesses predominate. Observation of groups of irregularly rounded fungus cells, readily recognized by their thick brown shells, is diagnostic. Each group is 10 to 15 microns in diameter. Direct examination of crusts, exudates and (as in the present case) material obtained by the scraped-incision method used in Hansen's disease, should also reveal these cells.

The organisms are readily cultured. Material from the lesions implanted on Sabouraud's glucose agar either at room temperature or at 37.5° C. produces slow-growing, sharply marginated, mounded colonies. While the color varies with individual strains, these colonies are generally dark olive to black. On the basis of variations in conidia formation as seen microscopically, three species are generally differentiated.[3, 5] However, since any of the various strains or species may cause the same clinical and histopathologic conditions, precise classification of the etiologic agent is chiefly of academic interest.

As to treatment, excision[6] or destruction as by electrocoagulation is suitable for smaller lesions. Other means of treatment have thus far been found ineffective in general, although roentgen therapy may be of some help.

REPORT OF A CASE

A 47-year-old Filipino agricultural laborer was first observed in January 1953 because of a slowly enlarging tumor of the left foot of 18 years' duration. The patient was born in Luzon, P. I., but had lived

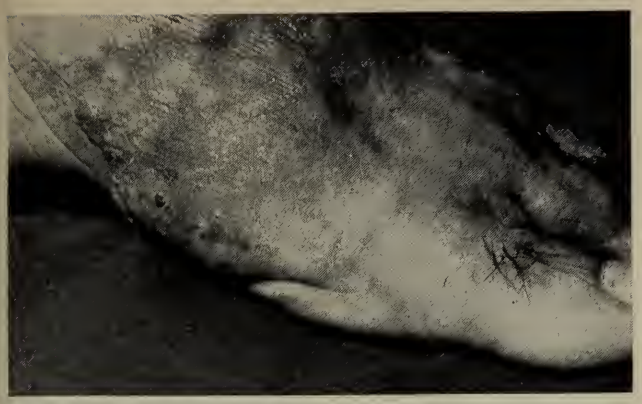

Figure 1.—Chromoblastomycosis. Lesion of the foot, of 18 years' duration.

in the United States since 1927, and in California continuously since 1929. In 1935, while doing field work near Salinas, Calif., he noticed a swelling over the left clavicle and on the dorsum of the left foot. The clavicular swelling was incised and it healed promptly with no subsequent difficulty. The lesion on the foot, however, became progressively more extensive during the ensuing 18 years. At no time was there itching, pain or exudation of pus or other material from the area. Over the years numerous physicians including orthopedic surgeons and dermatologists were consulted, and on two occasions biopsy was done, but no diagnosis was made.

When the patient was examined in January 1953, there were no significant findings other than the tumor on the foot. On the dorsum of the left foot and toes there was a diffuse, somewhat nodular, firm thickening involving the skin and subcutaneous tissues (Figure 1). The overlying epidermis in some areas appeared thinned and violaceous, but was otherwise intact and without other significant gross change. There were no abnormalities of sensation. Over the left clavicle was a small, well-healed old scar.

Results of serologic tests for syphilis were negative. The blood cell counts, blood sedimentation rate and serum protein values were all within normal limits. Roentgenograms of the feet showed no abnormalities or differences between the left and the right.

In histologic examination of a specimen from the involved area, moderate hyperkeratosis and acanthosis of the epidermis were noted. In the dermis were large areas of fibrosis and granulation tissue containing epithelioid cells, plasma cells, polymorphonuclear leukocytes, lymphocytes and a few giant cells. In one area, deep in the corium, was a closely-packed group of cells, each about 12 microns in diameter, irregularly rounded and having a thick, brown wall. The brown color was somewhat less pronounced in a Hotchkiss-McManus stained slide than in slides stained with hematoxylin and eosin. Similar organisms were readily found in smears of material obtained by making an incision, 1 cm. long and about 4 mm. deep, with a scalpel and scraping the edges of the incision. (This is the scraped-incision technique widely used in Hansen's disease.)

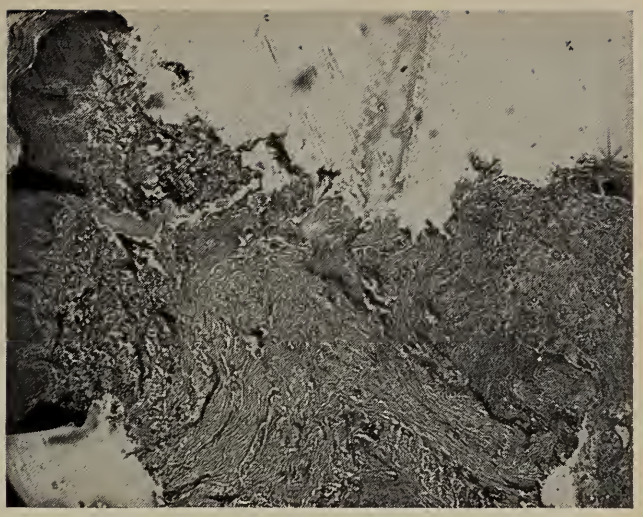

Figure 2.—Photomicrograph (× 25) showing areas of fibrosis and of granulation tissue. Arrow points to cluster of fungus cells deep in the corium.

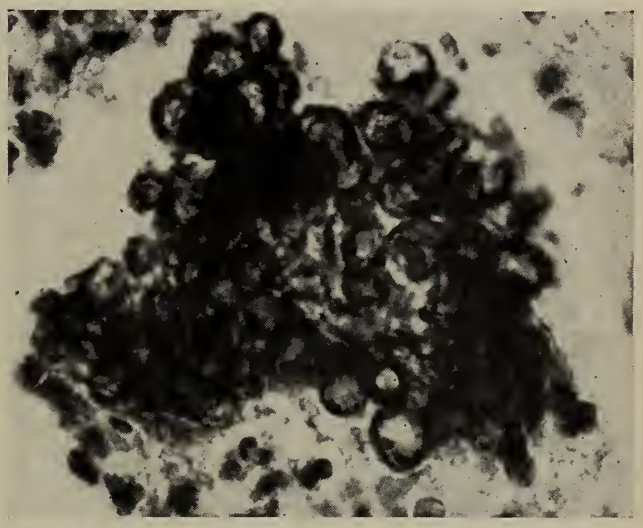

Figure 3.—Photomicrograph (× 2200). Higher magnification of the cluster of fungus cells seen in Figure 2.

Tissue fragments were implanted on Sabouraud's medium and cultured at room temperature. In about four days minute black specks were seen and they slowly enlarged to form sharply marginated dull black colonies with elevated centers. Cultures incubated at 37.5° C. showed more rapid growth. Culture mounts were identified as Hormodendrum compactum.

SUMMARY

A case of chromoblastomycosis, the first recognized and apparently contracted in the state, is presented and the salient features of the disease briefly reviewed.

2741 H Street.

ACKNOWLEDGMENT

Photographs and photomicrographs were prepared from kodachromes by Avis Gregersen, Department of Dermatology, University of Southern California School of Medicine.

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Mumps Meningoencephalitis

Report of an Unusual Case

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THE COMPLICATIONS of mumps in childhood are few and usually unimportant. When the disease occurs in adolescence, however, the complications are occasionally severe. Meningitis is not a rare complication, and meningeal symptoms sometimes appear before or in the absence of parotid swelling, which may make the diagnosis obscure or difficult to establish, except in the presence of confirmatory laboratory data. Such complications more often occur during epidemics, and usually sudden high fever, headache, nuchal rigidity and Kernig's sign appear near the end of the first week. Mental changes and delirium may be evident from the onset. The spinal fluid is under increased pressure but usually is clear, with a predominance of lymphocytes present and normal sugar content. Most patients recover spontaneously and death is rare. Symptoms may be relieved by lumbar puncture. Other treatment is symptomatic.

REPORT OF A CASE

A white boy 15 years of age was admitted to the Communicable Disease Unit of the Los Angeles County General Hospital on May 7, 1952. He had been well until two days before, when he awoke in the morning with a throbbing frontal headache, bilateral orbital pain, vomiting, and temperature of 102°F. The voice was normal and there was no stiffness of the back or the neck. The symptoms persisted and a physician who was consulted withdrew a specimen of clear spinal fluid containing 900 cells per cu. mm., 95 per cent lymphocytes. The patient was admitted to the hospital where he rapidly grew worse.

From the service of Dr. A. G. Bower.

The patient was certain he had had varicella and measles but was not sure about mumps.

Upon admittance, the patient was uncomfortable but alert. The oral temperature was 102°F. There was questionable redness at the openings of Stensen's ducts bilaterally and slight inflammation of the pharynx. The parotid area was not swollen and the cervical lymph nodes were not enlarged. No rigidity was noted in the neck, back or hamstrings. Reflexes including the superficial ones were normal. The spinal fluid pressure was greater than normal. It contained 847 cells, 92 per cent lymphocytes, per cu. mm., and the sugar and protein contents were within normal limits.

Leukocytes numbered 7400 per cu. mm., 64 per cent polymorphonuclear cells.

Upon complete bed rest the symptoms were almost immediately resolved. The temperature was normal on the fourth hospital day and the patient had no complaints thereafter.

Spinal fluid was aspirated a number of times and pleocytosis was noted in all specimens. The fluid was always sterile and chemical constituents were within normal limits. Exhaustive laboratory diagnostic studies were made and the diagnosis was finally made on the basis of results of complement fixation for mumps. On May 7 a sample of the patient's blood was sent to the laboratory, which reported complement fixation for mumps at dilution of 1:8. On May 19 another specimen of blood was sent to the laboratory and this time a report of complement fixation at dilution of 1:32 was received.

The patient was discharged on the twenty-first hospital day.

COMMENT

It has been shown, especially by Enders, that during an attack of mumps a specific antibody appears in the patient's serum which has the capacity to fix

complement in the presence of an antigen derived from the parotid gland of a monkey previously inoculated with the virus. This antibody is usually demonstrable by the fourteenth day following onset. Therefore, the complement fixation test might be of value in differentiating between acute aseptic meningitis, infectious encephalitis and acute aseptic meningoencephalitis. As with other serologic methods, the results of this test in mumps may be regarded as conclusive only when two specimens of serum are examined at suitable intervals. The first specimen must be taken as soon as possible since the antibody may appear very rapidly after appearance of symptoms. In many cases the test becomes positive five to seven days after the onset of disease, and in some even as early as the first or second day. Nearly always by the fourteenth day the serum will show high antibody titer. The antibody concentration usually begins to fall after six to eight weeks.

In addition to that of mumps, a variety of viruses (and possibly other agents) may give rise to acute aseptic meningoencephalitis. The viruses known to cause it are those of mumps, lymphocytic choriomeningitis, Western equine encephalitis, Japanese encephalitis, Russian encephalitis and poliomyelitis. Cerebral manifestations of infectious mononucleosis may also be classified under the term acute aseptic meningoencephalitis.

Fortunately, in spite of frequent involvement of the central nervous system in mumps, complete and uneventful recovery is the rule. Apparently the fundamental lesion is one of perivascular demyelinization similar to that seen in other postinfectious encephalitides. Most cases are diagnosed clinically on the basis of a strong history of exposure.

SUMMARY

A case of mumps meningoencephalitis without obvious parotid involvement, diagnosed by complement fixation, is reported.

1200 North State Street.

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Large Twins

PAUL L. MURPHY, *M.D.*, Hanford and
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TWINS OF COMBINED WEIGHT at birth exceeding 7,000 grams (15 pounds 8 ounces) are relatively rare. In the case here reported, twins having a combined weight of 8,828 grams (19 pounds 6¾ ounces) were delivered.

In 1938 Mathieu[5] made a survey of the literature and found reports of only three cases in which the combined weights exceed 7,000 grams. He collected 17 additional reports of large twins. The highest combined weight in the series was 9,180 grams; the next highest was 8,157 grams. The heaviest infant weighed 4,670 grams and the smallest 3,400 grams.

Since Mathieu's article six more reports of large twins have been published. DeLee and Greenhill[2] reported twins with a combined weight of 7,710 grams; Croft,[1] a combined weight of 7,847 grams; Wolf,[8] 8,250 grams; Park,[6] 8,705 grams; Summers,[7] 7,725 grams; and Dring,[3] 8,250 grams.

Of 107 sets of twins delivered at the University of California Hospital, San Francisco, in the period 1941 to 1951, only one set, with combined weight of 7,510 grams, weighed more than 7,000 grams.

REPORT OF A CASE

A 30-year-old Mexican multigravida was first observed in the antepartum clinic of the Kings General Hospital, March 31, 1953. The last menstrual period was December 22, 1952. The patient was gravida XI and had had eight full-term normal deliveries, one twin delivery (one twin weighing 7 pounds 9 ounces and the other 7 pounds 8 ounces) and one abortion. Six of the babies born in this hospital had birth weights of 9 pounds 13 ounces, 7 pounds 15½ ounces, 8 pounds 14 ounces, 9 pounds 15 ounces, 12 pounds 2½ ounces, and 7 pounds 6 ounces. One infant born elsewhere weighed 11 pounds 12 ounces.

The patient's mother and a first cousin were diabetic. Except for pronounced obesity (226 pounds) no abnormalities were noted upon physical examination. Results of urinalysis were within normal limits and a serologic test was negative for syphilis. The mother was Rh positive.

A diagnosis of twin pregnancy was confirmed by x-ray examination at 5½ months. In the antepartum period the patient had moderate dizziness and there was an increase of 19 pounds in weight. The urine remained negative for sugar and albumin and the blood pressure was within normal limits throughout the period. Near term, the abdomen became extremely large and pendulous and edema at the ankles was noted.

The patient entered the hospital at 9:15 a.m. on September 26, 1953 (full term), having irregular contractions with the membranes seeping. At about 4 p.m. the contractions became regular and of good character, occurring every 3 to 4 minutes, and at 8 p.m. when bearing down pains began, the patient was taken to the delivery room. Cervical dilation was complete except for a small anterior lip.

At 9:10 p.m. a boy was delivered by breech without difficulty. The membranes of the second sac were then ruptured, podalic version was carried out, and another boy was delivered by breech extraction at 9:15 without difficulty. Neither episiotomy nor use of forceps was necessary. A large, single placenta having two sacs was delivered at 9:25. Pituitrin and Ergotrate were administered intramuscularly at the conclusion of the third stage.

Both twins were apparently normal in all respects. One weighed 10 pounds 1¾ ounces and the other 9 pounds 5 ounces. The postpartum course of the mother and the infants was uneventful.

In view of a family history of diabetes and the fact that large babies are statistically associated with the disease, an oral glucose tolerance test was performed on the mother in January, 1954, and the result was at the upper limits of normal.

DISCUSSION

Several factors should be considered in the etiology of large twins—namely, diabetes and prediabetes, erythroblastosis, the sex of the infants, and postmaturity. According to various reports the incidence of large babies (10 pounds or over) is five to eight times greater for diabetic mothers than for non-diabetic mothers. Kriss and Futcher[4] noted that the incidence was significantly greater in prediabetic mothers also. Fetal hydrops or erythroblastosis is well known for edematous accumulation of fluid and increase in fetal weight. Sex may also be a factor in largeness of twins, since male infants are generally larger at birth than females. The role of postmaturity is somewhat controversial.

SUMMARY

Twins of combined birth weights exceeding 7,000 grams are relatively rare. In the present case a set of twins with a combined birth weight of 8,828 grams was born to a woman who may have been prediabetic.

Kings General Hospital, Hanford (Murphy).

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Acute Pulmonary Edema Induced by Hepatic Pressure

STANLEY MARCUS, M.D., and
SIM P. DIMITROFF, M.D., Los Angeles

ACUTE PULMONARY EDEMA has been reported in many unrelated clinical states such as left ventricular failure, trauma to the skull, infections, uremia, brain tumor, trauma to the chest wall, pulmonary infarction and shock, to list a few. There are many ways to bring the condition about experimentally.[2] The following instance of acute pulmonary edema following hepatic pressure is presented because it illustrates still another mechanism by which the condition can be caused and also because it may help in correlating the various etiologic concepts.

REPORT OF A CASE

A 62-year-old white man was admitted to Wadsworth General Hospital because of paroxysmal nocturnal dyspnea of one month's duration. The patient had a history of hypertension for two years and of intermittent claudication for eight years, but none of angina or infarction. He had been under the care of a physician in private practice and the only medication that had been prescribed for him was papavarine.

Upon examination the patient was observed to be of short stature, hyperkinetic and orthopneic. The blood pressure was 130/70, the pulse rate 100 and respirations 20 per minute. Results of a fundoscopic examination were classified Grade II (Keith-Wagner). The veins of the neck were engorged. Slight dullness and inspiratory rales were present at both lung bases. The left border of cardiac dullness was percussed at the anterior axillary line. P-2 was greater than A-2, rhythm was regular. There was no gallop. A loud (Grade IV on the basis of 1-VI), harsh, systolic murmur was loudest at the apex and transmitted into the left axilla. There were no thrills or diastolic murmurs.

The edge of the liver, which was rounded, was palpable four and a half fingerbreadths below the right costal margin at the right midclavicular line. It was not tender. There was slight pitting edema at both ankles. Cyanosis was not present.

An x-ray film of the chest showed pronounced left ventricular enlargement, pleural effusion at both bases and central pulmonary vascular congestion. In an electrocardiogram there were inverted or diphasic T-waves in the standard leads and in leads V-4, V-5 and V-6, the abnormalities being interpreted as non-specific myocardial changes. Results of examination of the blood and of the urine were within normal limits and a serologic test was negative for syphilis.

Shortly after admission to hospital the circulation time from arm to tongue was 28 seconds and from arm to lung 8 seconds. Venous pressure was 21.5

From the Department of Medicine, Wadsworth General Hospital, Veterans Administration, Los Angeles.

cm. of water. Deep pressure was exerted upon the liver for 15 seconds, after which the pressure rose to 25.5 cm. of water. There was no untoward incident during the performance of these tests except the discomfort of having to lie supine. About two minutes after the venous pressure determination, the patient had a typical attack of severe, acute, left ventricular failure, manifested by sudden, pronounced acceleration of breathing, insistence on sitting bolt upright, pallor, great anxiety and rapid development of bubbling rales throughout the chest. Air hunger was pronounced.

Immediate treatment consisted of administration of morphine sulfate and phenobarbital, application of tourniquets to the extremities, and inhalation of oxygen mixed with alcohol vapor. In 15 minutes the attack ended.

Subsequent treatment consisted of complete digitalization, use of mercurial diuretics and prescription of a low salt diet. After two days the rales abated and the patient could lie supine with comfort. An x-ray film of the chest showed no pleural effusion, minimal vascular congestion, and no changes in heart size. Four days following the attack the arm-to-tongue circulating time was 17 seconds and the arm-to-lung time was 6 seconds. Venous pressure was 5.5 cm. water and it did not rise after hepatic pressure. The blood pressure remained normal during the stay in hospital and the apical systolic murmur decreased significantly in intensity.

COMMENT

Three hypotheses have been advanced to explain the mechanisms of acute pulmonary edema, one postulating mechanical, another neurogenic, and a third humoral causes. Welch suggested the mechanical hypothesis in 1888 with conjecture that decreased left ventricular output in the presence of unchanged right ventricular output would lead to accumulation of fluid in the pulmonary circuit, and edema. The concept is frankly mechanical in the sense that the disproportion between left and right cardiac output is the basic disturbance. The case reported herein is illustrative of this concept. The uncongested liver has been estimated to contain at least 800 cc. of blood.[1] The application of external pressure to a relatively closed system bounded by the liver capsule, must be capable of forcing into the heart and lungs a significant amount of blood from an organ congested to about twice its normal capacity. The sudden influx of this amount of blood into the heart would increase the burden upon an already overburdened contractile mechanism. The disproportion between the right and left heart would be further increased, and fluid would collect in the lungs. It is to be noted that in the case here reported upon, both right and left ventricular failure were present. Hence the disproportionate output was between two already failing ventricles. If the weakness of the left were greater than the right, the condition could lead to increased retainment of the fluid in the pulmonary vascular system.

The neurogenic hypothesis presupposes increased pulmonary capillary permeability, induced by vagal stimulation. Events occur so swiftly at the onset of an attack, however, that there is no way to determine whether such reflexes take place. It can only be surmised that the rise of right auricular pressure, due to hepatic pressure, would give rise to the Bainbridge reflex, which is mediated via the vagus nerve, thereby increasing the neurogenic stimulus and its effect upon pulmonary capillary permeability.

The humoral hypothesis is as follows: The mechanism involved consists primarily of increased output of epinephrine, which leads to hypertension in the aorta, the carotid and the brachiocephalic vessels. This acts in conjunction with the vagus reflex to increase vascular permeability in the lungs. (In the present case the anxiety that was present during orthopnea and that was aggravated when the patient had to lie flat while circulation time and venous pressure was being determined, could have increased epinephrine output and initiated its subsequent reflex effect on pulmonary vessels.)

All three theories are applicable in the case presented. The roles of the vagal influence and humoral stress reaction cannot be overlooked in the etiology of this complex cardiac disturbance. The mechanical hypothesis, however, is the most plausible. The simple fact of sudden increased further overload of blood into the heart and lungs, already overloaded and failing, is essentially a mechanical failure in cardiac function.

SUMMARY

A case of acute pulmonary edema precipitated by hepatic pressure during the determination of venous pressure in a patient with borderline adjustment is described. The significance of this in view of the theories of causation is discussed. In the authors' opinion, the mechanical theory best explains the acute pulmonary edema in this case.

1530 Greenfield Avenue.

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California MEDICINE

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For information on preparation of manuscript, see advertising page 2

EDITORIAL

Greater Public Service

THE EIGHTY-THIRD ANNUAL SESSION of the California Medical Association was ended in mid-May on a note of greater public service through the physicians of the state.

Four and one-half days after its beginning, the session had gone through 127 scientific papers, 117 technical and scientific exhibits, three solid days of medical motion pictures, three medical and surgical clinics on colored television and two of the most historic meetings of the House of Delegates in many years.

The meetings of the House of Delegates were memorable for their frank recognition of a public need and a willingness to meet that need.

This recognition is, of course, a broadening of the base of the voluntary health insurance program underwritten by physicians through California Physicians' Service.

CPS was originally formed in 1939 to meet a public need and demand. A large segment of California citizens in the lower income brackets had evidenced a need for some sort of program under which they could budget their medical care costs through a prepayment plan. CPS was developed to meet that need; it was patterned as a membership organization, in which the patient, the physician and the elected administrative members representing both parties would each have a place in the plan and its operations.

Pioneering in a theretofore uncharted sea, CPS ran into the difficulties associated with trying to match an ideal to the practical facts of life. The ideal was to give complete medical and hospital service to the beneficiary members at the lowest possible cost. In practical application it was found there was an overuse of the service, with a consequent drain on a limited pooled fund of members' dues. Changes were needed and were made. Added responsibility was placed on the beneficiary members by requiring them to assume the cost of the first two visits to the physician in medical cases.

As more experience was gained, it became necessary to limit or exclude certain benefits which were unduly costly or too easily accessible, to the detriment of the fund. These changes were made.

With changes in the cost of living, the beneficiary members asked for consideration of a higher income ceiling—a higher level of family income under which the members would receive full service benefits without added costs for medical fees. This demand was also met by boosting the income ceiling to $4,200 a year for families. A greater segment of the people was thus given added coverage.

Within the past three years it has become increasingly evident that an even higher income ceiling was wanted by the beneficiary members. Too many of them found that their membership covered certain parts of their medical and hospital bills but did not provide any real assurance of not receiving an additional statement from the doctor. Surveys, interviews, observations, all pointed to this demand.

What the California Medical Association has now done is to recognize this demand and to provide a means of satisfying it. Under the plan adopted by the House of Delegates last month, the need for a higher income ceiling is both recognized and met. The legislative body of the CMA voted to increase the income ceiling to $6,000 annually for a family, *in those areas where the public wanted such coverage and where the physicians through the component county medical society agreed to render service under such circumstances.*

Under this plan, the public and the physicians must both want this type of coverage before it can become effective. The public will signify its desire by agreeing to pay higher dues for the added cover-

age; the doctor members must vote to accept this plan and, along with it, a higher schedule of fees from CPS for their services to persons who buy the more expensive plan.

Meanwhile, physicians in areas surrounding those where this plan goes into effect will be asked to recognize the new program just as their neighboring colleagues do. If a membership group in San Francisco is signed up, physicians in Alameda, Marin and San Mateo counties will be asked to recognize the higher income ceiling if members of the group seek their services. This request will represent reciprocity; such services will work in both directions.

The effect of the higher CPS income ceiling will be to open up to California Physicians' Service an entirely new field of potential beneficiary members. Many employed groups today have, through the force of inflation, been lifted above the present $4,200 income ceiling. Many have turned to other forms of prepayment plans in order to gain assurance of the meeting of costs when they arise. Now they will be able to return to CPS with assurance of their costs being met and with the added assurance of having *free choice of physician and hospital.*

For those employee groups in the lower income brackets, the present program will be maintained, at present rates. For those who want indemnification contracts, rather than service benefits, the newly-formed indemnity insurance company, subsidiary of CPS, is ready to write business.

Thus CPS is now able to meet the public demand for a variety of health insurance coverages. Those in the low income groups may continue their earlier contracts unchanged. Those whose income is higher may, for a slight additional cost, secure a greater degree of coverage. Those who want indemnification may secure that.

Just how big a market this opens up has not been accurately estimated. However, it is known that more than 80 per cent of employed persons in California come within the new income ceiling. This statistic alone should argue for a market much broader than has been available before.

Along with adopting the new CPS income ceiling, the House of Delegates voted to press for adoption of the usual-fee indemnity plan of health insurance, under which the usual fees in the community are established, contracts are written on the basis of these fees and physicians agree to make no further charges without the prior knowledge and consent of the patient.

Similarly, the House went on record as approving the concept of a "personal physician" for each citizen, a medical manager who would assist his patients to secure the type and degree of treatment indicated by clinical studies.

Thus with a triple stroke, the California Medical Association has gone on record as seeing and recognizing public needs and meeting them. The starting machinery has been blueprinted. All that remains now is for the physicians of California to put these plans into action, make them a reality available to the public. As soon as that is accomplished, the public in California really will be served.

California MEDICAL ASSOCIATION

NOTICES & REPORTS

The New President-Elect

SIDNEY J. SHIPMAN, M.D.

THE NEW PRESIDENT-ELECT of the California Medical Association, Dr. Sidney J. Shipman of San Francisco, needs no introduction to the great majority of the Association's members. He has long been a familiar figure in the scientific, the legislative and the administrative functions of the organization.

Born in Armada, Michigan, in 1896, Doctor Shipman received his B.S. at University of Michigan in 1917 and his M.D. at the same university in 1919. For two years after his graduation from medical school he served as a Trudeau Foundation fellow at Saranac Lake, New York. In 1921 he came to California and served for two years as a resident physician with Doctor Robert A. Peers at the Colfax School for Tuberculosis.

With this background, Doctor Shipman established his practice in San Francisco where, since 1923, he has specialized in thoracic medicine and surgery. He has long been associated with the University of California School of Medicine and is now a clinical professor of medicine.

From an absorbing schedule as medical practitioner and teacher, Doctor Shipman has yet been able to find time to serve in medical organizations, both professional and lay. He has served as president of the San Francisco Medical Society and of the California Tuberculosis Association. Three years ago he was honored with election to the presidency of the National Tuberculosis Association, and he still is a member of the Board of Directors. In April of this year he was the recipient of the California Medal awarded by the California Tuberculosis and Health

ARLO A. MORRISON . . . . . President
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Association for outstanding work in tuberculosis control.

In the California Medical Association, Sid Shipman first served as a Delegate from San Francisco County, and later he was elected a Councilor-at-Large. In 1949 he became Chairman of the Council, the highest administrative post in the Association, and he has served in that capacity for the past five years. As Council chairman he has been noted for his kindly forbearance, for thorough understanding of all the human elements that enter into the deliberations of a sizable policy-making group and for his capacity for keeping business moving along at a rapid but unhurried rate. His even temper commanded the respect of all those serving under his chairmanship.

Aside from carrying on a busy practice and serving several organizations simultaneously, Sid Shipman finds relaxation in fishing. His power boat may be found almost every week-end in the fishing grounds off San Francisco's Golden Gate.

The California Medical Association is fortunate to have as its coming president a man of Sid Shipman's attainments and abilities.

ALBERT C. DANIELS

Past presidents of the California Medical Association at their luncheon, Tuesday, May 11, 1954, in Los Angeles, had as their guest Dr. Walter B. Martin, president-elect of the American Medical Association. *Front row*, left to right, Dr. George G. Reinle, Dr. Lyell C. Kinney, Dr. Martin, Dr. Robert A. Peers, and Dr. William R. Moloney, Sr. *Back row*, left to right, Dr. Lewis A. Alesen, Dr. H. Gordon MacLean, Dr. Sam J. McClendon, Dr. John W. Cline, Dr. Lowell S. Goin, Dr. E. Vincent Askey, and Dr. R. Stanley Kneeshaw.

SO YOU'VE JOINED THE C. M. A.

Following is the text of a booklet that is sent to each new member when he joins the California Medical Association

Welcome to the CMA

YOU ARE NOW recorded as a member of the California Medical Association (CMA) and, automatically, as a member of the American Medical Association (AMA).

Your CMA membership card is enclosed. Your AMA membership card will be sent to you direct from AMA headquarters in Chicago.

Meanwhile, you may want to know a few facts about your CMA, which are presented here under three principal headings:

. . . what the CMA is.

. . . how it operates.

. . . what it does.

WHAT THE CMA IS

CMA is actually a federation of county medical societies, 40 of them, located in all parts of California. Its membership is made up of the combined memberships of the county societies—it has no members except the county society members.

In turn, the CMA federates with other state and territorial medical associations to form the American Medical Association.

You will note the repetition of the word "federates." This is used advisedly, to reiterate the autonomous position of each organizational unit in American medicine. Each county and each state association is completely autonomous; each may establish its working rules and conditions, subject only to such basic factors as its members having graduated from approved medical schools and holding valid licenses to practice medicine.

The strength of medical organization lies in this very independence of each unit. The "grass roots" really count; medicine is organized from the ground up, not from the top down.

Under this system, it is incumbent on the state and national organizations to give full consideration to other organizational steps in any actions taken. Where the county society has the privilege of rejecting an action by the state association, the latter should and must act in accordance with the combined wishes of the county societies. Similarly, the AMA must give full weight to the state association wishes.

This is the democratic way of organization.

HOW THE CMA OPERATES

The CMA works through its House of Delegates, the policy-making body; through the Council (Board of Directors, if you choose), and the Executive Committee of the Council.

THE HOUSE OF DELEGATES is composed of the representatives elected by the county societies on the basis of one Delegate and one Alternate for each 50 active members or major fraction of 50. Thus there is a direct numerical representation of the county societies in the policy-making body of the Association. In addition, the members of the Council serve as members of the House of Delegates.

The House of Delegates meets each year at the Annual Session. It may also be called into special meetings where the purpose of such meeting is clearly stated in advance. It may also hold Interim Sessions. The Annual Session usually occurs in the early part of May, the Interim Session in early December.

THE COUNCIL is composed of eleven District Councilors, each elected for a three-year term by the Delegates from his own geographical district, and six Councilors-at-Large, elected for three-year terms by the House of Delegates as a whole. In addition, the CMA Secretary and Editor serve as members of the Council, ex-officio without the right to vote. The President, President-Elect, Speaker of the House of Delegates and Vice-Speaker are also ex-officio. with the right to vote.

The Council is authorized to carry on the business of the Association and to serve in the stead of the House of Delegates when that body is not in session. In practice, the Council serves as a board of directors serves a corporation; it is responsible for the operations of the CMA, for its activities, its personnel, its office quarters, etc.

THE EXECUTIVE COMMITTEE is composed of the CMA President, President-Elect, Council Chairman, Speaker of the House of Delegates and Chairman of the Auditing Committee. The Secretary and Editor serve ex-officio, without the right to vote.

The Executive Committee meets between meetings of the Council and its actions are subject to Council approval before becoming official. This small committee permits a flexibility of action not possible with the 23-man Council.

The officers of the CMA are a President, Presi-

dent-Elect, Speaker and Vice-Speaker of the House of Delegates (all elected by the House), and the Secretary and Editor, both appointed by the Council.

The Council also appoints an Executive Secretary, who manages the Association's business and employs additional assistants with the advice and consent of the Council.

All functions of the CMA are undertaken under the terms of the Constitution and By-Laws. A copy of this document is yours for the asking.

FINANCES are under the direction of the House of Delegates, the Council and the Auditing Committee. The House of Delegates adopts an annual budget, which is then administered by the Council and the Auditing Committee (composed of three Councilors elected by the Council). The Council may, by three-fourths vote, make additons to the annual budget between meetings of the House of Delegates.

DUES are also set by the House of Delegates as part of the annual budget. *All members of the same class pay the same dues.*

Relief from CMA dues is permissible under specified conditions enumerated in the By-Laws. Dues may be reduced in whole or in part, by vote of the Council, in cases where a member is called into military service, is incapacitated by prolonged illness, is undertaking postgraduate training or is in his first three years of medical practice. Your county society can advise you of the specific circumstances where such reductions are available.

An annual financial report, submitted by independent auditors, is published for all members prior to the Annual Session.

WHAT THE CMA DOES

CMA operates two offices, a headquarters in San Francisco and a Southern California office in Los Angeles. All official records are kept in the headquarters office, both for membership and for general CMA activities.

Through committees, the CMA organizes and operates a variety of activities directly or indirectly affecting the practice of medicine or the public health. Among these are:

LEGISLATION. The Committee on Public Policy and Legislation directs all legislative activities, with the advice and consent of the Council and the House of Delegates. This includes the maintenance of legislative representatives at sessions of State Legislature.

BLOOD BANKS. The Blood Bank Commission assists county societies in establishing blood banks, coordinates the activities of the local banks, maintains reciprocity services and records and cooperates with local, state and national organizations in performing a community service.

CANCER COMMISSION. The Cancer Commission oversees all CMA activities in the field of cancer research, study and therapy. This includes professional education programs, maintenance of tumor boards in approved institutions, investigation of new systems of therapy and cooperation with public groups in cancer education, detection and therapy.

POSTGRADUATE TRAINING. The Committee on Postgraduate Activities arranges two-day postgraduate training institutes in selected areas, schedules week-by-week individual specialist lectures in smaller communities and cooperates with medical educational institutions in providing high-grade postgraduate programs for all CMA members.

LEGAL DEPARTMENT. The CMA retains legal counsel to furnish opinions and to represent the Association in many matters. Legal opinions are not available to individual members on personal problems but may be obtained by county medical societies on matters of statewide implication and interest.

PUBLIC RELATIONS. The CMA maintains a full-time public relations department, staffed by experienced men, to work with the county societies and their members in carrying out medicine's program in the public interest. Several aids are available to individual members for use in their own offices.

MEDICAL LIBRARIES. The CMA contributes to the support of the Lane Medical Library, San Francisco, and the library of the Los Angeles County Medical Association, both of which provide a packet service to members inquiring on specific subjects.

CALIFORNIA MEDICINE. The Association publishes CALIFORNIA MEDICINE as a monthly medical journal. It is generally rated as among the top state medical journals in the country. A subscription is part of the consideration of your membership.

STANDING COMMITTEES. Through a number of standing committees CMA is in a position to study various matters which may come before it. These committees are listed in the front pages of the official journal.

SPECIAL COMMITTEES. Special problems requiring unusual study or treatment are, from time to time, assigned to special committees formed for that particular purpose. These committees report to the Council or the House of Delegates, as directed in the action which creates them.

* * *

HERE is your CMA. It is set up to serve you through your county society and to represent you in AMA.

If you have any questions on any of the activities listed above, or others not listed, please write, wire or phone the CMA office. This is your organization, operated to serve you in any way possible.

NEWS & NOTES

NATIONAL • STATE • COUNTY

LOS ANGELES

The Los Angeles Radiological Society at a recent meeting elected the following officers for the year 1945-55, to take office in September 1954: President, Dr. M. M. Haskell, Long Beach; vice-president, Dr. George Jacobson, Los Angeles; secretary, Dr. Oscar Harvey, Los Angeles; treasurer, Dr. Hubert J. Prichard, Long Beach, and Dr. Joseph F. Linsman, Beverly Hills, were elected to the executive committee.

* * *

At the May 1954 meeting of the **Radiological Society of Southern California,** the following officers were elected for the year 1954-55, to take office in June 1954: Chairman, Dr. James T. Case, Santa Barbara; vice-chairman, Dr. Lowell S. Goin, Los Angeles; secretary-treasurer, Dr. George Jacobson, Los Angeles.

* * *

Dr. Howard R. Bierman recently was appointed director of research of the City of Hope Medical Center. Dr. Bierman came to the City of Hope last September as medical and scientific director of the Hospital for Tumors and Allied Diseases. He retains that post and now in addition also has charge of all City of Hope research projects on cancer, leukemia, tuberculosis and heart disease amenable to surgical treatment.

Formerly Dr. Bierman was a member of the faculty of the University of California School of Medicine, San Francisco, and of the staff of the Laboratory of Experimental Oncology.

SAN FRANCISCO

Northwestern Medical School alumni and faculty in San Francisco will hold a luncheon Thursday, June 23, at 12:30 p.m. in the Bellevue Hotel. The speaker will be Dr. Richard H. Young, Dean of Northwestern Medical School. Tickets may be purchased at a desk in the Civic Auditorium near the registration desk for the American Medical Association annual meeting.

Local chairman for the luncheon is Dr. John E. Kirkpatrick, 516 Sutter Street, San Francisco.

* * *

Various phases of the clinical problems of aging will be covered at the eleventh annual meeting of the **American Geriatrics Society** which will be held in San Francisco, June 17-19, with headquarters at the Fairmont Hotel.

Scientific programs are open to all members of the medical profession and to those interested in the problems of aging. Panel discussions will cover recent developments in cardiology, the relation of industry to geriatrics and methods of determining operability in older patients.

Papers on various problems of the aging will be presented by outstanding clinicians and investigators from all over the country. Malford W. Thewlis, M.D., founder and permanent secretary of the society, will discuss "Overtreatment in the Aged." One of several papers on endocrine influences will be presented by Laurance W. Kinsell, M.D., Oakland, chairman of the local arrangements committee for the meeting. Dr. Kinsell, director of the Institute for Metabolic Research, Highland Alameda County Hospital, will speak on "Hormones, Growth and Senescence."

The annual business meeting of the society will be held Thursday morning, June 17. Scientific sessions will start Thursday afternoon and will continue through Saturday morning.

GENERAL

Grants totaling $52,239 to support **three research projects** and one training program in California were announced recently by United Cerebral Palsy. The research grants are as follows:

Earl Eldren, M.D., University of California at Los Angeles School of Medicine—Centroneural Control of the Muscle Spindle, $10,000.

John M. Adams, M.D., David Imagawa, Ph.D., and Margaret H. Jones, M.D., University of California at Los Angeles School of Medicine—Placental Transmission of Viral Infections, $17,354.

Robert Harrington, Ph.D., Orthopaedic Hospital, Los Angeles—A Study of Breathing Movements in a Selected Cerebral Palsy Population, $3,517.

The training grant, of $21,368, was made to Luigi Luzzatti, M.D., Children's Hospital, San Francisco, for "A Training Program for Personnel Concerned with the Care and Treatment of the Cerebral Palsied Pre-School Child."

* * *

Final steps in the activation of the **American College of Gastroenterology** were taken by the Fellowship of the National Gastroenterological Association at a special meeting recently held in New York City. It was voted to tranfer the membership of the National Gastroenterological Association, classified as to their present status, to the American College of Gastroenterology. California physicians who are officers of the College are: Dr. Arthur A. Kirchner, Los Angeles, second vice-president, and Dr. Donald C. Collins of Los Angeles and Dr. Felix Cunha, M.D., of San Francisco, members of the board of trustees.

* * *

The American Dermatological Association is offering a series of **prizes for the best essays** submitted on original work, not previously published, relative to some fundamental aspect of dermatology or syphilology. Cash prizes will be awarded as follows: Five hundred dollars, three hundred dollars and two hundred dollars for first, second and third place, respectively. Competition in this prize contest is open to scientists generally, not limited to physicians.

Manuscripts must be submitted not later than November 15, 1954, to Dr. J. Lamar Callaway, Secretary, American Dermatological Association, Duke Hospital, Durham, North Carolina.

The results will be announced before January 1, 1955. The candidate winning first prize may be invited to present his paper before the annual meeting of the Association, which will be held April 17-21, 1955, at the Belleview-Biltmore, Belleair, Florida.

Lecturers at the annual meeting of the **American Institute of Dental Medicine** which will be held at the Desert Inn, Palm Springs, California, October 31 to November 4, 1954, are as follows: William A. Albrecht, Ph.D., University of Missouri; Charles H. Best, M.D., University of Toronto; Gordon M. Fitzgerald, D.D.S., University of California, San Francisco; Maynard K. Hine, D.D.S., Indiana University; Ernest Jawetz, M.D., University of California, San Francisco; and Joseph P. Weinmann, M.D., University of Illinois.

Full information may be obtained from the executive secretary, Miss Marion G. Lewis, 2240 Channing Way, Berkeley 4.

POSTGRADUATE EDUCATION NOTICES

UNIVERSITY OF CALIFORNIA AT LOS ANGELES

Third Annual Laboratory Technicians Symposium, June 19-20.

Contact: Mrs. Margaret H. Griffith, Assistant Head of Postgraduate Instruction, Medical Extension, University of California, Los Angeles 24, California.

UNIVERSITY OF CALIFORNIA, SAN FRANCISCO

Conference on General Surgery

Date: September 13 through 17, all day, at Medical Center. This conference will be offered for the purpose of stressing the newer concepts, methods of diagnosis, treatment and techniques in surgery. Throughout the session emphasis will be placed on the diagnosis and treatment of malignant lesions. Instruction will consist of didactic periods, panel discussions, and actual operative demonstrations which will be televised from the operating room to the lecture hall. This program will be designed for general practitioners who are doing surgery. The class will be limited.

Conference on Fractures and Diseases of the Bone

Date: September 20 through 23, all day, San Francisco County Hospital. The program will cover the newer concepts, methods of diagnosis, treatment and techniques. There will be didactic lectures, panel discussions, and actual demonstrations of illustrative cases. The class will be limited.

Medicine for General Practitioners

Date: September 21 to December 7, Tuesday evenings, East Oakland Hospital, Oakland. This is a continuation course which is offered every year, with complete change of program and speakers. Class limited.

Evening Lectures in Medicine, Part 1 and Part 2

Date: September 16 through December 9, Thursday evenings, Mills Memorial Hospital, San Mateo. This is also a continuation course which will be of interest to both internists (Part 1) and to physicians in general practice (Part 2).

Symposium on Endocrine Diseases and Geriatrics

Date: October 22, 23, 24 (week-end), University of California Extension Building, 540 Powell Street, San Francisco. A review of recent developments in both fields, with suggestions for the management of patients past the age of fifty.

Contact: Stacy R. Mettier, M.D., Head of Postgraduate Instruction, Medical Extension, University of California Medical Center, San Francisco 22, California.

COLLEGE OF MEDICAL EVANGELISTS

Diseases and Injuries of Bones and Joints (4 weeks) Full time.

Date: July 5 through 30, 1954. Dr. Taylor's office and various hospitals. Tuition: $100.00. G. Mosser Taylor, M.D., Alonzo J. Neufeld, M.D., and Associates. Unless otherwise stated or arranged, courses will be held in Osler House, corner State and Michigan Avenues.

Contact: Chairman, Section on Graduate and Postgraduate Medical Education, College of Medical Evangelists, 312 North Boyle Avenue, Los Angeles 33, California.

Medical Dates Bulletin

THIS BULLETIN of the dates of postgraduate education assemblies and the meetings of various medical organizations in California is supplied by the Committee on Postgraduate Activities of the California Medical Association.

JUNE

Reunion Meeting, American College of Physicians: Northern California and Nevada, San Francisco, June 16.

American Geriatrics Society, Hotel Fairmont, San Francisco, June 17-19.

American College of Chest Physicians, Fairmont Hotel, San Francisco, June 17-20.

American Gastroenterological Association, San Francisco, June 18-19.

American Rheumatism Association, St. Francis Hotel, San Francisco, June 18-19.

American Society for the Study of Sterility, St. Francis Hotel, San Francisco, June 18-20.

American Medical Women's Association, San Francisco, June 18-20.

American Academy of Tuberculosis Physicians, San Francisco, June 19.

American Diabetes Association, San Francisco, June 19-20.

Society for Investigative Dermatology, Clift Hotel, San Francisco, June 19-20.

American Medical Association, Annual Session, 1954, San Francisco, June 21-25.

OCTOBER

California Society of Internal Medicine, Yosemite National Park, October 2.

San Francisco Heart Association 25th Annual Postgraduate Symposium on Heart Disease, October 6-7-8.

Los Angeles County Heart Association, Annual Professional Symposium on Heart Disease, October 13-14.

California Academy of General Practice, Sixth Annual Scientific Assembly, Los Angeles, October 24, 25, 26, 27.

NOVEMBER

Los Angeles Urologic Research Convention, Los Angeles, November 8-12.

AMERICAN MEDICAL ASSOCIATION

Annual Session, 1954, San Francisco, June 21-25.
Clinical Session, 1954, Miami, November 30-December 3.
Annual Session, 1955, Atlantic City, June 6-10.
Clinical Session, 1955, Boston, November 29-December 2.

THE PHYSICIAN'S *Bookshelf*

SYNOPSIS OF PEDIATRICS — Sixth Edition. John Zahorsky, A.B., M.D., F.A.A.P., Professor Emeritus of Pediatrics, St. Louis University School of Medicine; assisted by T. S. Zahorsky, B.S. M.D. Senior Instructor in Pediatrics, St. Louis University School of Medicine. C. V. Mosby Company, St. Louis, 1953. 470 pages, 158 illustrations and 9 color plates, $6.00.

The preface of this Sixth Edition of *Synopsis of Pediatrics* states that this issue is intended to "delete old methods and to incorporate some of the new ideas on child care." The reviewer found that this edition failed to do this in many regards. In fact, many of the therapeutic procedures presented in this Sixth Edition are not modern and up-to-date. Many are distinctly old-fashioned with limited value; many of no value at all. In fact, the book fails to describe many of the very important modern advances in pediatrics and in certain areas makes specific therapeutic recommendations which ignore more recent knowledge completely. The limitations and inadequacies of this book are best brought out by direct quotations relative to certain specific facts.

In regard to the advantages of breast feeding, the authors state: "We have a strong impression that the breast-fed baby will be the stronger child in the end; ...will adjust himself to the complicated environments of modern life; ...will be a better scholar and more successful man." Would that even a small portion of this broad and enthusiastic statement were true.

Another point of considerable concern has to do with the administration of fluids. For example, intraperitoneal injection is recommended and the book states that: ..."A large quantity of fluid may be introduced into the system by injecting normal salt solution into the peritoneal cavity." It has been well established in the last generation that administration of fluid intraperitoneally is of some help in certain conditions, not without danger, and that normal salt solution is not physiologic salt solution but a hypertonic solution.

In another portion of the book it is stated that: "intravenous injections of fluid are not often used, as the amount which may be safely administered in this way is too small."

Regarding the use of blood in infants, several interesting statements are made. The authors recommend the subcutaneous or intramuscular injection of fresh blood and serum from a member of the family when blood is needed. It is stated that "no blood matching is necessary." Under the discussion of measles and its treatment it is also stated that "20 to 30 cc. of blood may be drawn from the vein ... of the father, mother or older sibling and injected subcutaneously or intramuscularly in one or more places." These two procedures ignore completely the possibility of sensitization of the Rh negative child. While it is recognized that this was done indiscriminately many years ago, our knowledge relative to the possibility of sensitization of Rh negative individuals and the potential dangers that exist in the future now make such procedures unwarranted.

Certain interesting physiologic explanations are also presented. One learns that vomiting produces predominately acidosis and not alkalosis and "the systemic depletion of carbohydrates from starvation will generally overbalance the trifling loss of hydrochloric acid" by vomiting. One also learns that "uremia, by increasing the blood pressure may be a cause of recurrent epistaxis."

This book is out-of-date in many regards. It fails to meet the obligations set forth by the authors in the preface to this Sixth Edition. It does not contain many of the brilliant advances of the past twenty years. Much of the treatment in the book is empiric and probably unnecessary.

Pediatricians will not use this book, medical students are advised not to use it, and certainly it is of no value to the general practitioner.

* * *

THE HEART BEAT—Graphic Methods in the Study of the Cardiac Patient. Aldo A. Luisada, M.D., Associate Professor of Medicine, Director, Division of Cardiology, Chicago Medical School. Paul B. Hoeber, Inc., 49 E. 33rd St., New York, 1953. 527 pages, 311 illustrations, $12.00.

As the second part of the title indicates, this book concerns itself with the investigation of cardiovascular disease by various types of tracings, either sound, mechanical, radiation or electrical. The author points out that with the advent of electrocardiography, interest in other graphic methods waned until recent years. The first half of the book describes a method in each of some thirty chapters, divided into eight sections which include: A. Vibrations of the Thoracic and Abdominal Walls Due to Cardiovascular Action; B. Vibrations of the Body Due to Cardiovascular Action; C. Venous Pulsations; D. Intrathoracic Tracings; E. Arterial Pulsations; F. Pressure Tracings; G. Radiography of the Motions and Volume Changes of the Heart and Large Vessels; H. Respiratory Tracings; I. Tracings of Electrical Phenomena of the Heart and Vessels. The ballistocardiogram is discussed in about ten pages, and the electrocardiogram is so briefly reviewed as to hardly warrant its inclusion. The author in his preface, however, hopes that specialists in limited fields will not object to this brevity which was necessitated for completeness. All-inclusiveness was carried to the inclusion of a chapter of six lines on pleural tracings. Among tracings described are those of epigastric, jugular, hepatic, esophageal, intracardiac and air-passage pulsations. Phonocardiography and electrokymography are given more detailed treatment. The last half of the book is a clinical application of these graphic methods in a variety of cardiovascular disorders. Here under each of fifteen conditions are correlated all the applicable tracings earlier described. The illustrations are very good although the text and figures occasionally don't agree (Figs. 15 and 117). The index is good, and the bibliography complete. This book will be of value mostly to the cardiologist, internist and physiologist. It is primarily a reference volume although its all-inclusiveness has necessitated brevity.

CLINICAL DISORDERS OF THE HEART BEAT. Samuel Bellet, M.D., Director, Division of Cardiology, Philadelphia General Hospital; Associate Professor of Cardiology, Graduate School of Medicine and Assistant Professor of Medicine, School of Medicine, both at the University of Pennsylvania; and Clinical Professor of Medicine, Women's Medical College, Philadelphia. Lea and Febiger, Philadelphia, 1953. 373 pages, 163 illustrations, $8.50.

Recent advances in our understanding of the mechanism and treatment of cardiac arrhythmias, the growing importance of disturbances of cardiac rhythm during surgery and the ease of studying disordered cardiac mechanisms by the direct writing electrocardiograph have made an up-to-date general treatise on the subject of cardiac arrhythmias urgently needed. This need is admirably fulfilled by Doctor Bellet's well organized, thorough, lucid volume. The book is divided into four general sections. A presentation of the general features of disorders of the heart beat is followed in order by a discussion of the individual arrhythmias, clinical conditions where arrhythmias are important such as electrolyte disturbances and finally, a consideration of digitalis, quinidine and procaine amide.

Recent theories concerning the genesis of the auricular arrhythmias are presented clearly. The bibliography of 496 references is up-to-date and even comparatively rare disturbances of cardiac rhythm are described.

The approach to therapy is sound. Simple and conservative measures are emphasized and the indiscriminate use of intravenous therapy is properly decried. The illustrations are adequate and short outline summaries in many chapters are helpful in emphasizing important points. It would have been valuable to have included a short section upon the details of investigating an ectopic rhythm by the use of special chest and esophageal leads and the graphic analysis of auricular and ventricular mechanisms in more complex arrhythmias. This book can be recommended highly to all internists and physicians interested in cardiovascular disease and it will be a valuable reference for students and interns.

* * *

REHABILITATION OF THE OLDER WORKER. Edited by Wilma Donahue, James Rae Jr., and Roger B. Berry. University of Michigan Press, Ann Arbor, 1953. 200 pages, $3.25.

The material for this book was presented at the University of Michigan Fourth Annual Conference on Aging and the discussion was devoted to the topic, "Rehabilitation of the Handicapped Worker Over Forty."

The University of Michigan was joined in the sponsorship of the conference by the Office of Vocational Rehabilitation of the Federal Security Agency, the Michigan State Medical Society, and the Office of Vocational Rehabilitation of the Michigan State Department of Public Instruction. More than fifty national, state, and community organizations served as participating agencies and sent delegates to the conference.

The object of the conference was (1) to focus attention upon rehabilitation of older handicapped workers as a means of augmenting the supply of manpower to meet defense needs; (2) to acquaint public and voluntary organizations with up-to-date knowledge of the technical skills and scientific advances available for rehabilitating the older workers; (3) to encourage the use of present knowledge by spreading it more widely among existing community agencies; (4) to stress the common denominators in the problems to be overcome in rehabilitating all types of workers; (5) to provide a means for securing the attention and support of all management, labor, professional and community groups concerned with the problem; (6) to encourage cooperative community activity and effective working arrangements between public, professional, and voluntary agencies; and (7) to define areas and problems which seem to require priority for further research and study.

The above topics were discussed in conferences and talks by leading authorities in each field.

The material in this book is of special interest to all those in the medical profession interested in rehabilitation of the handicapped patient.

* * *

MODERN CONCEPTS IN MEDICINE. Julius Jensen, Ph.D. (in Medicine), University of Minnesota, M.R.C.S. (England), L.R.C.P. (London). C. V. Mosby Company, St. Louis, 1953. 636 pages, $11.50.

Dr. Jensen attempts to explain disease in terms of stress and its effects. He describes (page 52) "how cellular functions have become adapted to the needs of the body. . . . The body can adapt itself to considerable variations in these functions, but when the variations exceed certain limits, they upset the normal economy and are called diseases." Again on page 61 he states that "life . . . may be considered a constant state of adaptation, either to change in the surrounding medium or in the systems which compose the organism. . . . Adaptation may be disturbed on different levels. The elementary adaptive processes may be disturbed; there may be disturbances of the systems which regulate the adaptive processes; and finally, the 'target' structures themselves, that is, the structures which have been developed to facilitate adaptation, may respond in a manner which is pathological within the concept expressed above."

In amplification of his thesis he then proceeds to write a text of medicine with a functional approach. This is somewhat sketchy but generally sound and offers the student information and suggestions not found in most texts on medicine. (However, in passing, it may be noted that his explanation of cancer is lame and almost naive in contrast to the lucid and brilliant concepts outlined by Dr. Clarence C. Little at his recent Lane Lectures at Stanford University School of Medicine.)

It would be easier perhaps to comprehend (and thus to go along more wholeheartedly with) the author if he did not use so many new and often unwieldy terms in his text. As it is, the reviewer is forced to recommend that a glossary be added to the book in order to keep the reader from floundering. For example, on page 19, in introducing his basic concept, the author discusses "a hierarchy of formative processes in biological organization" with the human body "thought of as a set of dynamic processes." (Note, also, the first paragraph of this review.)

In summary then, this is a thoughtful, provocative book, philosophical in its outlook but definitely unfinished in what it attempts to do. It is often involved, sometimes repetitive and difficult to comprehend. The reviewer hopes that the author will try again.

* * *

PROGRESS IN NEUROLOGY AND PSYCHIATRY—Volume VIII. Edited by E. A. Spiegel, M.D., Professor and Head of the Department of Experimental Neurology, Temple University School of Medicine, Philadelphia, Grune & Stratton, New York, 1953. 591 pages, $10.00.

The value of this annual summary of progress in the fields of neurology and psychiatry has long been established. The various chapters are generally of high quality; in some one must lament the lack of much evidence of the personal opinions of the reviewer, which reduces the material to an annotated bibliography. Even this, however, is valuable in a field with as voluminous a literature as this. The book is of more value to the neuropsychiatrist as a reference work than it is to the general practitioner.

TEXTBOOK OF PHYSIOLOGY AND BIOCHEMISTRY — 2nd Edition. George H. Bell, B.Sc., M.D. (Glasg.), F.R.F.P.S.G., F.R.S.E., Professor of Physiology in the University of St. Andrews; J. Norman Davidson, M.D., D.Sc. (Edin.), F.R.F.P.S.G., F.R.I.C., F.R.S.E., Gardiner Professor of Physiological Chemistry in the University of Glasgow; and Harold Scarborough, M.B., Ph.D. (Edin.), F.R.C.P.E., Professor of Medicine in the Welsh National School of Medicine of the University of Wales. E. & S. Livingstone Ltd., U. S. distribution by Williams and Wilkins, Baltimore, 1953. 1002 pages, $12.00.

The second edition of this excellent book consists of a considerable rearrangement of some of the chapters, and the addition of many new references in the chapter bibliographies, but actually has little new material. Often sentences and paragraphs are rewritten to give the modern emphasis. New material added includes a diagram of the structure of the subunit of insulin, formulas of ribonucleic acid and desoxyribonucleic acid, loss of iron in sweat and hair, more exact location of the site of conversion of carotene to vitamin A, newly discovered portions of the vitamin A cycle in the retina. additional color photographs of patients with vitamin deficiency. a table of the nutritional value of different parts of the wheat grain, improvements on the Krebs cycle, additional knowledge of the mineral metabolism of heart muscle, newer information on the innervation of the tongue, and the hyperglycemic factor of the alpha cells of the islands of Langerhans. There is the same number of chapters, but 84 additional pages.

This book has successfully combined biochemistry and physiology, with the omission of very little which would be of interest to the medical student or the practitioner. It is not, however, a book for the advanced student. The first nine chapters are a discussion of the chemical composition of the body and of foods, while the remaining 47 chapters deal with physiology in relation to chemical structure and energy-releasing reactions in the cells. The reviewer recommends the book to anyone who does not own the first edition.

* * *

FRONTAL LOBES AND SCHIZOPHRENIA—The Second Lobotomy Project of Boston Psychopathic Hospital. Ed'ted by Milton Greenblatt, M.D., Assistant Clinical Professor in Psychiatry; and Harry C. Solomon, M.D., Professor of Psychiatry, both of Harvard Medical School and the Boston Psychopathic Hospital. Springer Publishing Company, 44 East 23rd St., New York 10, 1953. 425 pages, $12.50.

This report is essential reading for the psychiatrist who must on occasion consider psychosurgery for his patients. It deals extensively with the results of such operations on specific aspects of brain function as well as with the integrated functioning of the individual. All of the material is not easy to digest, and probably the book can best be used as a reference for specific problems rather than a means of getting a comprehensive view of the value of lobotomy. It does not give any sure answers, but presents a good deal of factual data and is stimulative of thought.

* * *

A PRIMER OF CARDIOLOGY—2nd Edition. George E. Burch, M.D., F.A.C.P., Henderson Professor of Medicine, Tulane University School of Medicine. Lea & Febiger, Philadelphia, 1953. 339 pages, 214 illustrations, $5.50.

This book was designed as an introduction to cardiology for medical students and physicians. Its content varies from statements like "barium sulfate is radiopaque" to complex formulae (pages 96-97) that few physicians can understand. It is further inconsistent in that sometimes the reader is referred to other sources for full discussion of some topics, whereas other equally important subjects are dealt with in minute detail. The diagrammatic illustrations of the heart are not good. Some diagrams are shown unnecessarily several times, even occasionally on the front and back of a page or facing on each of two pages.

One might take issue with the blanket statement that a patient with uncomplicated myocardial infarction should stay for six weeks in bed without lavatory privileges. Further, one wonders how often the author follows his recommendation of advising the patient to go to bed for four weeks when the diagnosis of angina pectoris is made. He generally proscribes the use of caffeine, alcoholic beverages and tobacco in heart disease without presenting evidence as to their harm. There is no discussion of cor pulmonale or mention of pronestyl. The sections on the cardiac neuroses, congenital heart disease and bedside diagnosis of cardiac irregularities are good.

* * *

CLINICAL ROENTGENOLOGY — Volume I — Developmental and Systemic Conditions and Local Lesions in the Extremities. Alfred A. de Lorimier, M.D., Radiologist, St. Francis Memorial Hospital, San Francisco; Henry G. Moehring, M.D., Radiologist, Duluth Clinic; John H. Hannan, M.D., Radiologist, Cleveland, Ohio (all formerly directors of the Army School of Roentgenology). Charles C. Thomas, Publisher, Springfield, 1954. 492 pages, 782 illustrations, $18.50.

A new and decidedly desirable approach to the subject of "Clinical Roentgenology" is made in the first volume of this series, three more of which are to be published later. In volume one, which is limited to developmental and systemic conditions and local lesions of the extremities, the quality of the radiographs is generally excellent, and the format makes for ready reference. In addition to the radiographs, a useful resume of the clinical findings is also given, and, when appropriate, pertinent laboratory data.

Although in the present state of our knowledge of bone disease it is unlikely that experts will be in complete agreement on classification, these authors have made a good attempt. The comments on differential diagnosis included in most chapters are, like the numerous synonyms which are listed for the various disease processes, often helpful in the usually difficult task of diagnosing and classifying unusual bone diseases.

Although primarily a convenient reference work, this volume will make good reading for any physician who is interested in filling the gaps in his knowledge of the complicated topic of bone diseases.

* * *

DISABILITY EVALUATION—Principles of Treatment of Compensable Injuries—5th Edition. Earl D. McBride, B.S., M.D., F.A.C.S., Assistant Professor in Orthopedic Surgery, University of Oklahoma School of Medicine. J. B. Lippincott Company, Philadelphia, 1953. 715 pages, $15.00.

This is the fifth edition of this standard work, "Disability Evaluation." The sections which relate to the method of approximate evaluation for partial and permanent disability are excellent. This is a very difficult problem and though the method used by the author may not apply to every state, the principles behind the method are universally applicable.

A large segment of the book concerns itself with discussion of methods of treatment and though they may represent the author's experience, the discussion of medical treatment in a book of this type does not appear to be proper.

A more concise edition limited to the evaluation of disability alone would make it much more useful to the average practicing physician.

The book does have a very definite value to anyone in the field of industrial or compensation medicine and surgery. In this one respect it is highly recommended.

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Anesthetic Alleviates Spasms in Infants

Alleviation of spasms in the upper gastrointestinal tract of infants has been accomplished through oral administration of procaine amide, a synthetic anesthetic, it was reported in a recent issue of the *Journal of the American Medical Association.*

Four Chicago physicians described four cases in which infants suffering from pylorospasms showed marked improvement and eventual cessation of vomiting following use of the drug in a water solution. Pylorospasm is a condition in which the infant vomits its food because spasmodic contractions of the outlet of the stomach keep the food from leaving the stomach and entering the intestines.

In two other cases, complicated by congenital tumors of the outlet of the stomach, use of procaine amide following surgery to remove the obstruction aided in the postoperative management, they added.

"The findings in these cases and the course of the infants described here, suggest that procaine amide can play an important role in the alleviation of spasm in the upper gastrointestinal tract of infants," the doctors stated.

"The use of procaine amide (Pronestyl, trade mark) in pylorospasm has not been previously reported. Its mode of action in the alleviation of spasms of the upper gastrointestinal tract is unknown. On the basis of our knowledge of the pharmacology of this drug, we postulate that its mode of action is due to anesthetization of the gastric mucosa that causes a diminution in local irritability and an elevation of thresholds to all gastrointestinal stimuli, a relaxation of the pyloric sphincter and a quiescence of all spontaneous gastrointestinal movement.

"Further trial of procaine amide administered orally in pylorospasms in infants is suggested."

While no side-effects to the drug were noted in this series of patients, careful observations should be made for evidence of heart changes, central nervous system stimulation or depression, and blood constituent changes, the doctors stressed.

Use of the drug in gastric retention of various types in adults is now under study, the doctors added, and a report on this will be made at a later date.

The article was prepared by Dr. Max S. Sadove, of the department of surgery (anesthesiology), University of Illinois Research and Educational Hospital, Chicago, and Drs. John L. Keeley, James A. Rooney, and Anthony Guzauskas, all of whom are associated with the department of surgery, Stritch School of Medicine, and the Mercy Hospital, Chicago.

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1. Weinberg, B.; Ginsberg, R., and Sorter, H.: Am. J. Digest. Dis. *20*:230, 1953.

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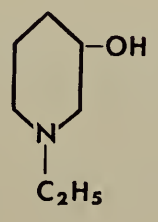

A Family Doctor for Every Doctor's Family

The American Academy of General Practice is enlisting the support of the American Medical Association and other medical organizations in a project which is being given high priority support during 1954. The project is best described by the slogan, "A Family Doctor for Every Doctor's Family."

The academy undertook the project because it felt that, like the cobbler's children who have no shoes, the doctor's family may be getting the poorest medical care and attention.

The idea first was formulated by Dr. Merrill Shaw, academy vice-president, who has been critically ill at his home in Seattle.

In outlining the idea to the academy's board of directors, Dr. Shaw said he was convinced that physicians and their families receive "hopscotch" medical attention, neglect their own health, and seldom have a thorough check-up. He said that during his

(Continued on Page 68)

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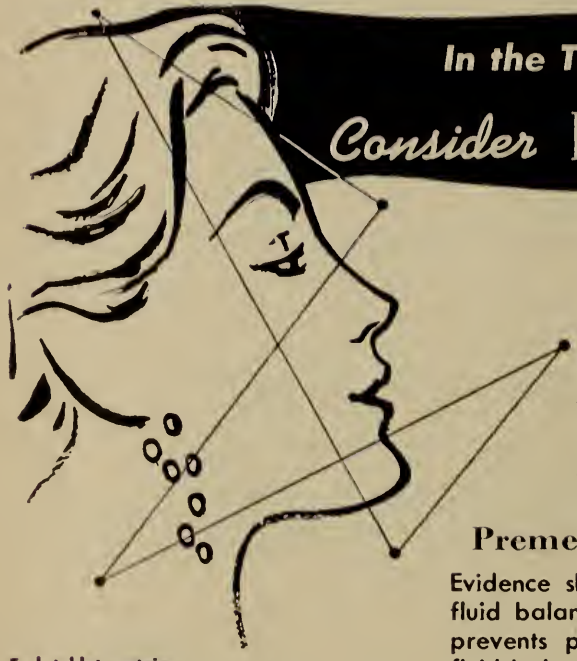

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Consider **PREMENSTRUAL TENSION**

4 out of 10 female patients of childbearing age suffer symptoms
Symptoms are not relieved by usual sedatives, analgesics, or antispasmodics

M MINUS 5®
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Evidence shows that premenstrual tension results from excess fluid balance preceeding actual onset of menses. M-MINUS 5 prevents premenstrual tension symptoms by lowering excess fluid balance, reducing stimulus to uterine spasm, and providing effective analgesia. It does not interfere with the menstrual cycle, and is non-toxic in the prescribed dosages. Vainder showed 82% of cases of premenstrual tension and dysmenorrhea relieved with *M-Minus 5.*(1)

(1) Vainder, Milton: Indus. Med. & Surg. 22:183 (Apr) 1953

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DOSE: One tablet 4 times a day, starting 5 days before expected onset of menses.

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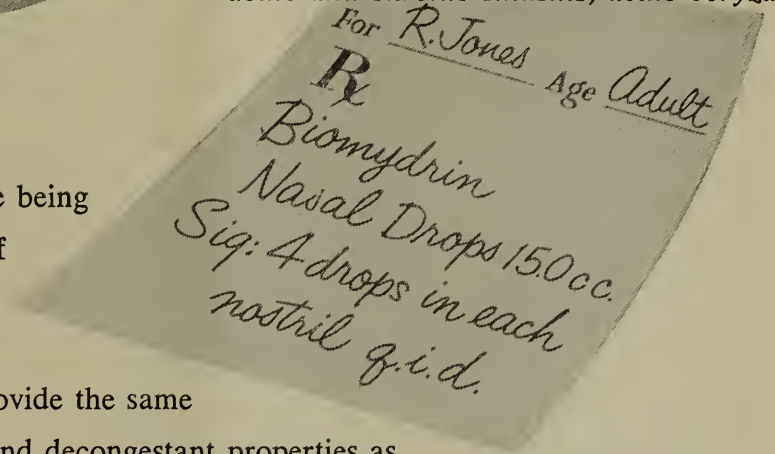

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Biomydrin Nasal Drops provide the same bactericidal, anti-allergic, and decongestant properties as Biomydrin Nasal Spray. Biomydrin Nasal Drops also make it more convenient to apply Biomydrin by tampon or wick.

Dosage: Adults, 4 to 5 drops in each nostril 4 or 5 times a day. Infants and children, 1 to 3 drops in each nostril 3 times a day. Supply: ½ ounce bottle with dropper.

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Safety Rules During Thunderstorms

Each year several hundred persons are killed by lightning.

In an effort to prevent such deaths, an editorial in a recent issue of the *Journal of the American Medical Association* presented the following rules for personal safety during thunderstorms.

1. Do not go out of doors or remain out during thunderstorms unless it is necessary. Stay inside of a building where it is dry, preferably away from chimneys, fireplaces, stoves and other metal objects.

2. If there is any place of shelter, choose in the following order: large metal or metal-frame buildings, dwellings or other buildings which are protected against lightning, and large or small unprotected buildings.

3. If remaining out of doors is unavoidable, keep away from small sheds and shelters if in an exposed location, isolated trees, wire fences, and hill tops and wide open spaces.

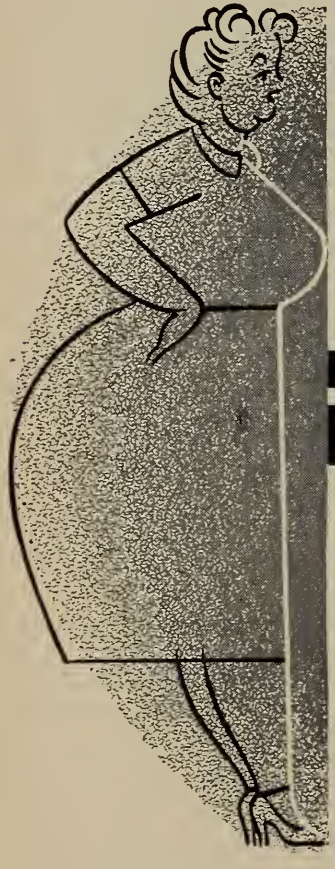
4. Seek shelter in a cave, a depression in the ground, a deep valley or canyon, the foot of a steep or overhanging cliff, in a dense woods, or in a grove of trees.

"One of the safest places during a lightning storm is in some metal enclosure, such as an automobile with a metal top, a steel railway coach or a steel building," the editorial pointed out. "A dangerous place is in the middle of a field away from all trees or in a wooden boat in a large expanse of water.

"In a residential area, if the house is higher than the surrounding trees, the lightning may discharge through the building. If the trees in the same vicinity are higher, lightning may discharge through them instead of the house. Pointed lightning rods will discharge the atmosphere and conduct the lightning to the ground. A farmer plowing the field would be safer under the tractor than perched in its seat.

"It is probably unwise to lean against an isolated tree trunk during a thunderstorm. If nothing better is available, it is probably safer to sit under the tree, but one should stay several feet away from the trunk and not touch it."

Dishpan Hands. The condition "dishpan hands" is no more than a reaction to exposure to irritants and sensitizers in daily household chores, according to Mrs. Veronica Conley, Chicago, assistant secretary of the American Medical Association's Committee on Cosmetics. In addition to their unattractiveness, such hands may be the danger signal that more serious trouble is not far off, she added.



in any case of **OBESITY**

with low-reserve thyroid. Mild thyroid deficiency "is a fairly common condition . . . characterized by weight gain, lassitude, brittle fingernails, coarse hair and . . . menstrual abnormality."[1] In this condition, accompanying thyroid medication may be of distinct help to the dietary regimen in reducing the patient.[2]

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Standardized equivalent to thyroid U. S. P.

1. Buxton, C. L., and Vann, F. H.: New England J. Med. 236: 536, 1948.
2. Cushney, A. R.: Textbook of Pharmacology and Therapeutics, ed. 10, Philadelphia, Lea & Febiger, 1943, pp. 436-437.

THE ARMOUR LABORATORIES
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Careless Use of Cleaning Fluids Can Be Dangerous

Cleaning fluids can be poisonous.

Too often labels on cleaning fluid bottles do not list potential dangers or necessary precautions for the solution's use — precautions necessary because many such fluids contain a very toxic chemical called carbon tetrachloride—according to Dr. Albert V. Myatt, New Orleans.

"Carbon tetrachloride is a clear fluid chemically related to chloroform," Dr. Myatt wrote in a recent issue of *Today's Health* magazine, published by the American Medical Association. "It evaporates quickly when exposed to air, causing fumes with a pungent odor. Both the fumes and the liquid are capable of causing poisoning. Carbon tetrachloride is used as a solvent, a dry cleaning solution, a grease remover, and a fire extinguisher."

Deaths from inhalation of fumes or ingestion of the chemical have been reduced as a result of modern methods of therapy. However, poisoning by carbon tetrachloride causes a lingering illness of one to three weeks, during which the kidneys shut down, the liver enlarges, and the bile backs up into the blood stream, causing jaundice.

"For some reason, people who habitually drink alcoholic beverages are much more susceptible to poisoning by carbon tetrachloride than those who do not drink," he pointed out. "Others who are more susceptible than normal to this poisoning are malnourished people or those suffering from diseases of the heart, stomach, kidneys or liver, Anyone who has once been poisoned by carbon tetrachloride is more likely than usual to be affected by it again.

"That one has been using carbon tetrachloride with no precautions all his life without difficulty does not mean he can continue doing so. The next careless use may cause illness."

Dr. Myatt listed six precautions to be taken when dry cleaning solutions are used:

1. Read the label carefully to determine whether the solution will burn. If it is flammable, use it outdoors, away from sources of flames and sparks.

2. If the solution is nonflammable, look for the ingredients on the label. If ingredients are not listed, assume it to be carbon tetrachloride, and act accordingly. Use carbon tetrachloride solution in a well-ventilated room or, preferably, outdoors. Do not breathe the vapor. If you must work inside, open windows and doors, and vacate the room as soon as possible until the odors and fumes vanish. Garments cleaned with the solution should be placed outdoors to dry.

3. Mark "*Poison*" on the label of cleaning fluid containers and store them out of reach of children.

4. Never put carbon tetrachloride solution in a soft drink or whiskey bottle or other beverage container, as it may be mistakenly consumed.

(Continued on Page 76)

References:

1. T. Wegmann, Schweiz Med. Wchschr. *80*:62, Jan. 21, 1950.
2. F Holtz and J. Drebinger, Schweiz. Med. Wchschr. *80*:1175, (1950).
3. J. Drebinger, Die Medizinische 7:795 (1952).

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SUPPLIED:
Pint bottles and 1 oz. dropper bottles; dropper calibrated for 0.6 cc. (1 grain) and 0.3 cc. (½ grain).

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TRANQUILIZER-ANTIHYPERTENSIVE,
ESPECIALLY IN MILD, LABILE
ESSENTIAL HYPERTENSION....

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A pure crystalline alkaloid of rauwolfia root isolated and introduced by CIBA

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A Family Doctor for Every Doctor's Family

(Continued from Page 62)

20 years as a general practitioner, he does not recall that a single doctor ever came to him for a physical examination. Dr. Shaw provided records to show that the country is losing many highly trained doctors at the peak of their careers. Many of the deaths are due to preventable illness. He estimated that more than half the doctors in private practice work 60 or more hours a week. Their failure to practice what they preach may result in many premature deaths.

The academy presently is leading a campaign, especially among women's auxiliaries of state and county medical societies, to have every physician arrange for the services of a family doctor for himself and his family.

LET A CHILD SPEAK. Children should be heard as well as seen, according to an article in the American Medical Association's *Today's Health* magazine. Only by permitting a child to join in conversation and express his opinion will he learn to talk so that others will want to listen to him.

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The Alexander Sanitarium is a neuropsychiatric open hospital for treatment of emotional states. Treatment consists of electric shock, hydrotherapy, insulin shock-therapy, psychotherapy and occupational therapy. Conditioned reflex treatment for alcoholism.

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Surgical Anatomy and Clinical Surgery, Two Weeks, June 21, August 23.
Surgery of Colon and Rectum, One Week, September 13.
Basic Principles in General Surgery, Two Weeks, Sept. 20.
Breast and Thyroid Surgery, One Week, June 21.
Thoracic Surgery, One Week, October 11.
Esophageal Surgery, One Week, October 4.
General Surgery, Two Weeks, July 26; One Week, Oct. 4.
Gallbladder Surgery, Ten Hours, October 25.
Fractures and Traumatic Surgery, Two Weeks, October 25.

GYNECOLOGY — Office and Operative Gynecology, Two Weeks, September 20.
Vaginal Approach to Pelvic Surgery, One Week, June 21.

MEDICINE—Two-Week Course, September 27.
Electrocardiology and Heart Disease, Two Weeks, July 12.
Gastroenterology, Two Weeks, October 25.

RADIOLOGY—Diagnostic Course, Two Weeks, October 4.
Clinical Course, Two Weeks, by appointment.
Radiation Therapy, by appointment.

PEDIATRICS—Clinical Course, Two Weeks by appointment.
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The importance of POTASSIUM in steroid hormone therapy

Patients undergoing steroid therapy frequently lose as much as 6 Gm. (90 gr.) of potassium daily from the intracellular fluid. To prevent hypopotassemia, 4 to 8 Gm. of potassium should be given orally with every 100 mg. of cortisone or hydrocortisone, or 30 Int. units of corticotropin daily.

Dosages of cortisone as small as 50 mg. daily will produce a potassium deficiency within 30 days. Consequently, when steroid therapy extends beyond three days, it should be accompanied with oral potassium, particularly in elderly people.

CONTRA-INDICATIONS:

1. Renal insufficiency, i. e. Less than 30 c. c. urine per hour.
2. Acidosis from any cause.
3. Hyperpotassemia from any cause.
4. Adrenal failure.

TOXICITY TEST:

Toxic reactions occur in only about 2% of patients if albumin in the urine is less than 2 plus, and specific gravity is above 1.010. Oral administration should be the rule where possible since this helps eliminate the risk of potassium toxicity.

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PCS-15 This enteric coated tablet provides 1 Gm. (15 grains) of potassium chloride, U.S.P. (524 mg. potassium). Coating is timed to prevent gastric disturbance and to assure optimum absorption in the intestine. (It resists gastric action for approximately 2 hours, and disintegrates in the intestine in 15 to 30 minutes). Capsule-shaped for ease of swallowing. Fewer tablets required for prophylactic or therapeutic dosage. Costs patient only 3 to 4 cents per tablet.

PCS-5 Enteric coated 333 mg. tablet providing (5 grains) of potassium chloride, U. S. P.

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Other indications for PCS-15

1. In pregnancy where there are excessive losses of potassium from the urinary or G.I. tracts.
2. Repeated emesis.
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5. To potentiate mercurial diuretics and to prevent digitalis intoxication.
6. Pulmonary infections or emboli.
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8. Familial periodic paralysis.
9. Intestinal obstruction or fistula.
10. Diabetic acidosis after 12 hours of treatment.
11. Post-operative hypopotassemia.

Please write for recent references

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Berkeley, California

Careless Use of Cleaning Fluids Can Be Dangerous

(Continued from Page 65)

5. Do not use carbon tetrachloride solution if you are ill, or if you have drunk alcoholic beverages within 24 hours, or if you are a chronic user of alcohol.

6. If you use carbon tetrachloride as a fire extinguisher, use it for as short a time as possible. As soon as the fire is extinguished, open windows and doors, and leave the area until the fumes are dissipated.

Finds Cortisone Beneficial in Treatment Of Shingles

Cortisone is useful in the treatment of severe and extensive cases of herpes zoster, commonly known as shingles, it was reported by Dr. Maxwell L. Gelfand, New York.

Use of the hormone drug in such cases shortens the acute phase of the disease, diminishes the intense pain, and reduces the incidence of complications, Dr. Gelfand wrote in a recent issue of the *Journal of the American Medical Association.*

(Continued on Page 78)

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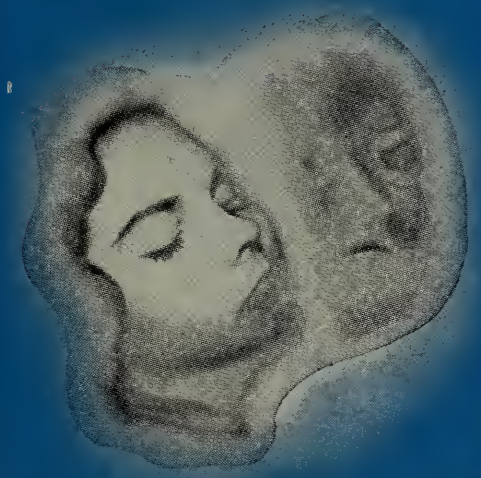

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Synergism affords *optimal sedative effect* with *minimal doses.*

Each tablet contains:

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Finds Cortisone Beneficial in Treatment Of Shingles

(Continued from Page 76)

Herpes zoster, or shingles, is an acute infectious disease of viral origin which affects the nervous system and is manifested by cold-sore-like skin blemishes and intense pain. Although it is essentially benign and followed by spontaneous recovery, the condition carries a high degree of morbidity in the elderly age group, and can cause such irreversible complications as sleeping sickness and blindness.

Dr. Gelfand administered oral cortisone for 12 days to five persons suffering from severe acute herpes zoster; the patients ranged in age from 32 to 72 years.

"Dramatic relief of pain occurred within 24 to 36 hours in four of the five subjects treated," he stated. "The fifth patient, who had chronic lymphatic leukemia, failed to respond to therapy. The skin eruptions did not progress in any of the patients, nor were there any evidences of secondary infection. The course of healing of the superficial lesions continued in the usual manner, requiring from one to three weeks.

"Despite the extensive and severe involvement, all patients felt so well that they were able to continue their usual work."

Eye involvement in one patient cleared rapidly following additional administration of cortisone directly to the eye, and a similar condition in the patient with leukemia improved, he added. None of the usual signs of undesirable metabolic or physiological disturbances was noted.

Dr. Gelfand stressed that cortisone exerts no curative action, and that its use should be reserved for patients who fail to respond to conventional methods of therapy.

"There is no specific treatment for herpes zoster or any of its complications," he stated. "Innumerable remedies have been suggested, and, at different times, a variety of agents have enjoyed popularity. In the older age group of patients with extensive involvement, however, all these modalities of treatment have been found wanting for the adequate relief of the excruciating pain experienced by patients in the acute stage of the disease and of the discomfort caused by the postherpetic neuralgia or other sequelae.

"The favorable response noted in four of five patients with severe herpes zoster treated with cortisone has real significance despite the fact that this is but a small group. The majority of those treated were between 50 and 70 years of age, and in addition the condition of two patients was complicated by ophthalmic involvement.

(Continued on Page 90)

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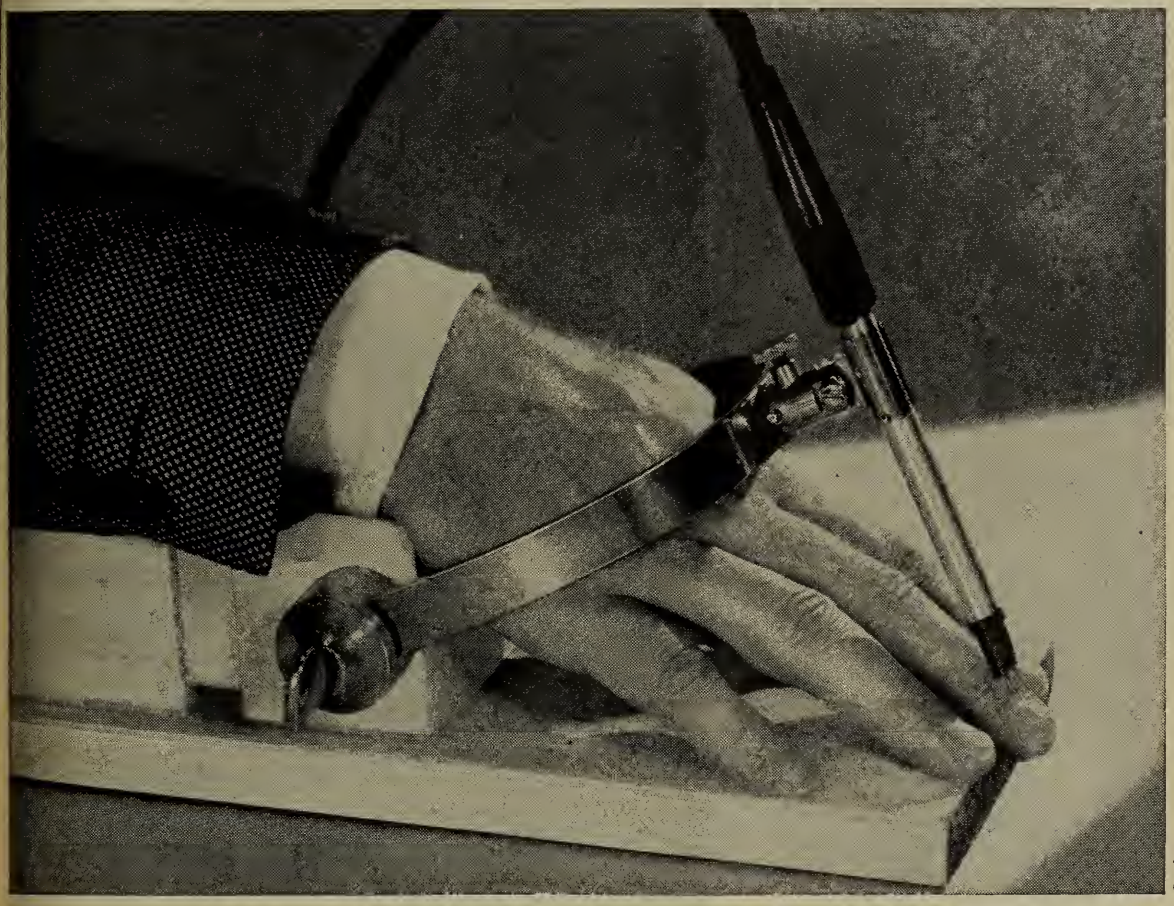
Physiological test compares Kent's "Micronite" Filter with other cigarette filters



"KENT" AND "MICRONITE" ARE REGISTERED TRADEMARKS OF P. LORILLARD COMPANY

To compare the efficiency of various filters as they affect physiological responses in the cigarette smoker, drop in surface skin temperature at the last phalanx was measured.

Using well-established procedures, the subject smoked conventional filter cigarettes and the new KENT with the exclusive Micronite Filter.

For every other filter cigarette, the drop in temperature averaged over 6 degrees. For KENT's Micronite Filter, there was no appreciable drop.

These findings confirm the results of other scientific measurements that show these facts: 1) KENT's Micronite Filter takes out *far more* nicotine and tars than any other cigarette, *old or new*. 2) Ordinary cotton, cellulose or crepe paper filters remove a small but ineffective amount of nicotine and tars.

Thus KENT, with the first filter that really works, gives the one smoker out of every three who is susceptible to nicotine and tars the protection he needs . . . while offering the satisfaction he expects of fine tobacco.

For these reasons, smokers have made the new KENT the most popular new brand of cigarette to be introduced in the last 20 years.

If you have yet to try the new KENT with the exclusive Micronite Filter, may we suggest you do so soon?

Your Eyes Are Too Precious To Take Chances with Dyes

When such vital and irreplaceable structures as the eyes are involved, a person should not take chances by using eye preparations which may contain ingredients of unproved safety and purity, in the opinion of Mrs. Veronica L. Conley, Chicago, assistant secretary of the American Medical Association's Committee on Cosmetics.

"The best way to be certain you avoid harmful dyes in eyelash preparations is to avoid preparations that are obviously dyes rather than the usual mascaras," Mrs. Conley wrote in a recent issue of *Today's Health* magazine, published by the A.M.A.

"Even if a product is not called a dye, you can identify it as such quite readily. The first indication will be in its advertising claims. It will be claimed to produce 'permanent' color. This is a relative term meaning that the color will be unaffected by water, tears or abrasion for several months as compared with a mascara, which must be reapplied at least daily.

"There are usually directions for application, and sometimes gadgets are included to protect the eyes during dyeing. Mascaras usually consist of a cake or cream accompanied by a brush for application; directions usually suggest a simple method of application."

It is difficult to visualize how a chemical can be applied to the eyelashes without coming in contact with the eyes themselves, regardless of precautions, according to Mrs. Conley, who added:

"One should assume nothing when such vital and irreplaceable structures as the eyes are involved. In any discussion of eye cosmetics, the safety of the eyes overshadows all other considerations. For this reason, the use of eyelash dyes is strongly discouraged."

Mrs. Conley pointed out that even though the federal Food, Drug and Cosmetic Act prohibits the interstate sale of dangerous cosmetics, a considerable amount of time may pass before a cosmetic is found to be injurious to health and is removed from commerce.

In addition to eyelash dyes that may contain harmful ingredients, Mrs. Conley stressed that women should use common sense to guard against the unscrupulous imaginative so-called beauty tips for the eyes given by professional models, film stars, actresses and beauty writers.

CALORIES. An insufficient number of calories in the daily diet is just as bad as too many, the American Medical Association stated. Calories have a profound effect on all body tissues, including the nervous tissues, skin, bones and teeth, eyes, and blood cells.

"A program of treatment for *chronic ulcerative colitis...*

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1. Rev. Gastroenterology 20:744 (Oct.) 1953; abstract in J. A. M. A., 153:1580 (Dec. 26) 1953.

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Danger of Immature Red Blood Cells In Blood Stream

The presence of immature red blood cells in the blood stream is a serious danger signal, in the opinion of Drs. Steven O. Schwartz and Fred Stansbury, Chicago.

The doctors based their conclusions on a 10-year study of 1,496 persons in whom immature red blood cells were found in the blood stream upon examination at Cook County Hospital.

"Under normal conditions, immature red blood cells are found only in the circulating blood of the fetus and the newborn infant," the doctors wrote in a recent issue of the *Journal of the American Medical Association.* "Beyond that period the presence of immature red blood cells in the blood stream indicates disorder in the blood-producing mechanism.

"The presence of immature red blood cells in the blood stream is generally a sign that the prognosis is poor, as evidenced by the appalling mortality rate of almost 50 per cent in the present study."

Of the 1,496 patients studied by the physicians, there were 361 who had hemorrhages, 36 per cent of whom died. There were 270 patients with pernicious anemia, 29 per cent of whom died; 224 with cancer, 61 per cent of whom died, and 195 with heart conditions, 66 per cent of whom died. Seventy-six per cent of the 154 patients with leukemia and related conditions died, as did 57 per cent of the 115 with infections, 20 per cent of the 86 with hemolytic anemia, and 50 per cent of those suffering from such miscellaneous conditions as diabetes and strokes.

"No totally satisfactory explanation is available of the precise mechanism that maintains a 'barrier' that normally prevents primitive cells of the marrow from reaching the blood stream," the doctors stated. "Evidence suggests at least two mechanisms: one chemical, primarily influenced by anoxia; the other physical, dependent at least in part on the arrangement of primitive cells.

"The violation of this 'barrier' and the escape of immature red blood cells signal the presence of a stimulus that is allowing the release of these cells before they have passed through the intermediate stage to become adult red blood cells ready for the circulation."

The authors are associated with the hematology laboratory and the Hektoen Institute for Medical Research of Cook County Hospital, Chicago.

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(Continued from Page 78)

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An unusual case in which about 20 sewing needles were found in the body of a man who never complained of symptoms traceable to the needles was described by Dr. Clarence L. Miller, Washington, in the current issue of the *Journal of the American Medical Association.*

The patient, 73 years of age, died in the U. S. Soldiers Home Hospital of a heart condition. A routine autopsy disclosed about 20 sewing needles scattered throughout the body—in the left side of the chest wall, in the left lower lobe of the lung, in the diaphragm, in the liver, and in the colon, Dr. Miller stated.

The needles were covered with rust and surrounded by a large amount of fibrous tissue. There were no eyes in any of the needles; all had rusted out. The needles apparently were ingested during the years the patient worked as an upholsterer and furniture maker, Dr. Miller added.

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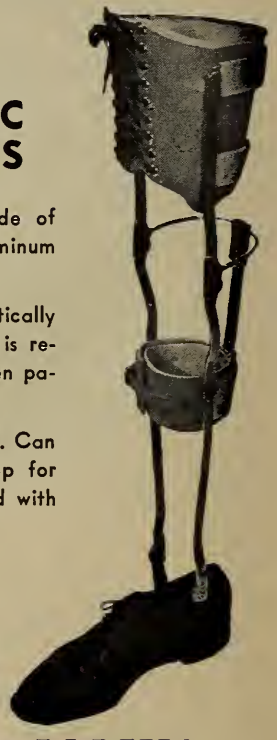

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